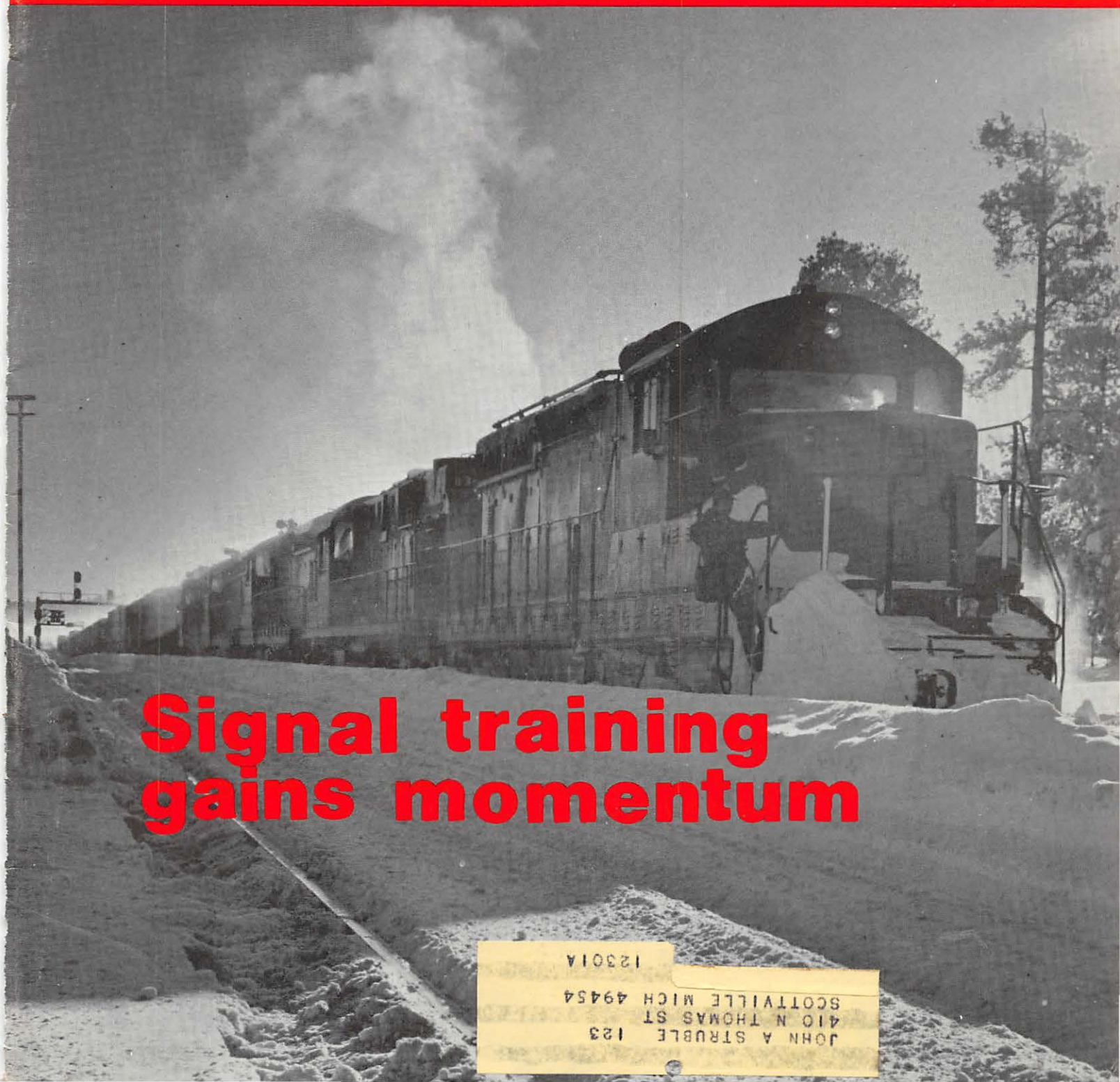
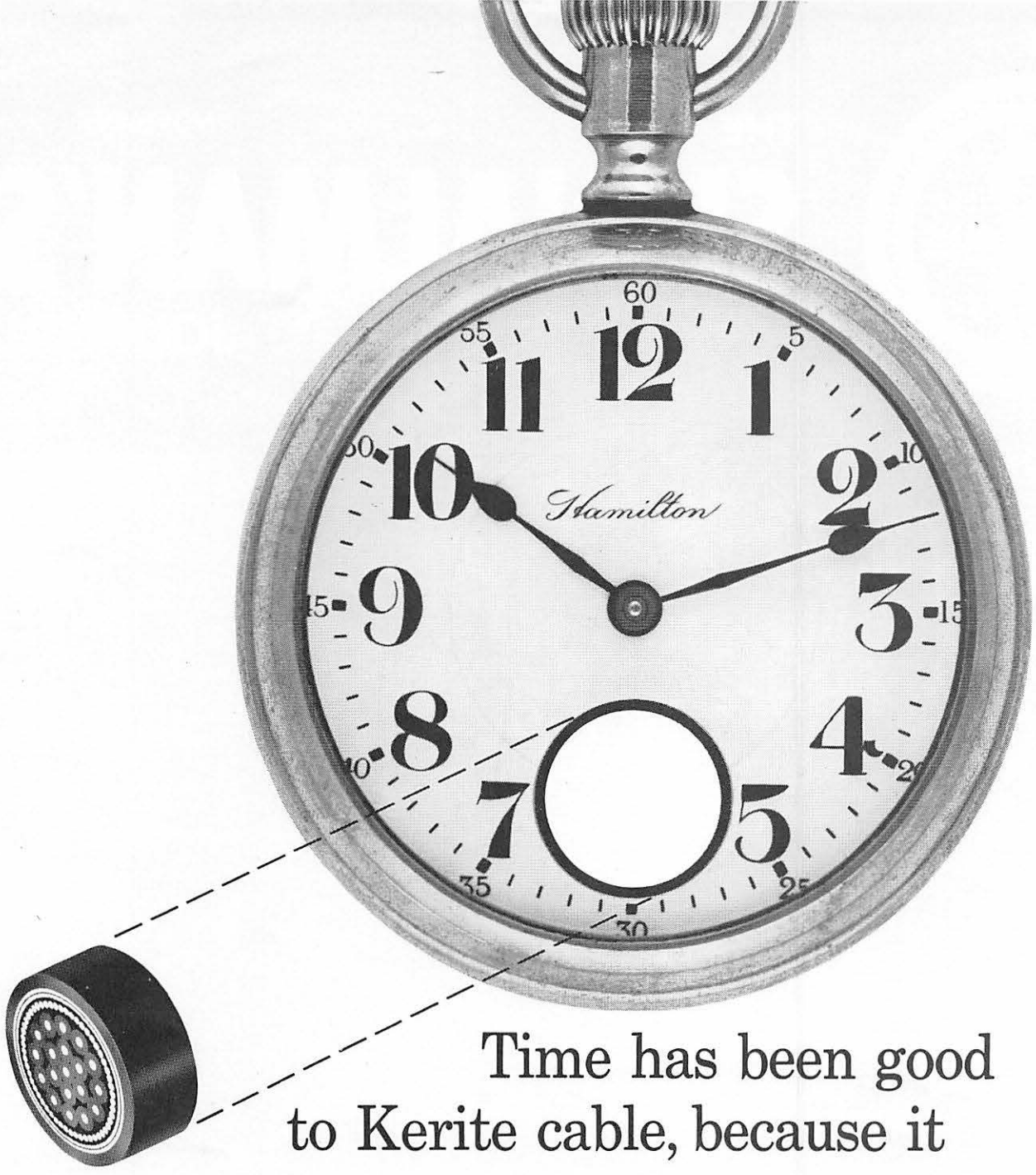
NOVEMBER 1974

THE SIGNALMAN'S JOURNAL



Signal training gains momentum

JOHN A STRUBLE 123
410 N THOMAS ST
SCOTTVILLE MICH 49454
12301A



Time has been good to Kerite cable, because it has quality built in first... to last.

There is no better known Quality Assurance than its 116-year record.

Specify Kerite for the ultimate in reliability.

The Kerite Company • Principal Offices: Boston; Chicago; New York; Philadelphia; San Francisco; and Seymour, Connecticut • Sales Representation throughout the United States. A subsidiary of Harvey Hubbell Incorporated.

MEMBER RPI Kerite

the cable that lasts... and lasts... and lasts...

THE
SIGNALMAN'S JOURNAL

OFFICIAL PUBLICATION BROTHERHOOD OF RAILROAD SIGNALMEN
Robert W. McKnight, Editor and Manager
601 W. Golf Road, Mount Prospect, IL 60056
Telephone: 312-439-3732

November 1974
Vol. 55 No. 9

Features:

Signal training makes gains 8
Railroad retirement benefits improved 21
BofRS Group Insurance Trust Family Life Plan 28

Departments:

Chamberlain: Signalmen are men of the year 4
News 5
News from Canada 25
Obituaries 19
Personal Aids and News:
Residual benefits are guaranteed 14
Car financing costs more 15
BofRS safety and health forms available 16
Signal RS&I: FRA rules on signal systems 12
Signalman's Worksheet: AC track circuits and relays 30

Cover: Santa Fe freight plows through 4-ft. snow heading west near Williams, AZ. Santa Fe Railway photograph.

Copyright © 1974 Brotherhood of Railroad Signalmen

POSTMASTER'S NOTE: Please report all undeliverable magazines to The Signalman's Journal, 601 W. Golf Road, Mount Prospect, IL 60056 on Form 3579.
ADDRESS CHANGE: B. of R.S. members or other subscribers should promptly advise the editorial office, 601 W. Golf Road, Mount Prospect, IL 60056 if this magazine is coming incorrectly addressed or if they change their address.
The Signalman's Journal is published monthly (except bi-monthly January-February and July-August) at 213 W. Madison St., Waterloo, WI 53594 by the Brotherhood of Railroad Signalmen. Second class postage paid at Mount Prospect, IL and Waterloo, WI.

GRAND LODGE DIRECTORY

C. J. CHAMBERLAIN, *President*
601 W. Golf Road
Mount Prospect, IL 60056

R. T. BATES, *Sec'y-Treas.*
601 W. Golf Road
Mount Prospect, IL 60056

A. E. LYON, *Pres. Emeritus*
1117 So. Wilke Road
Arlington Heights, IL 60005

JESSE CLARK, *Pres. Emeritus*
908 So. Park Drive
Terre Haute, IN 47802

Vice Presidents

W. W. ALTUS
220 South State Street
Chicago, IL 60604

J. T. BASS
Office 201
3121 East Colfax Avenue
Denver, CO 80206

W. D. BEST
601 W. Golf Road
Mount Prospect, IL 60056

C. S. CHANDLER
4243 Forest Avenue
Paducah, KY 42001

M. B. FRYE
601 W. Golf Road
Mount Prospect, IL 60056

J. E. PLATT
1396 Ste. Catherine St. W.
Suite 323
Montreal, PQ, Can. H3G-1P9

J. W. WALSH
Railway Labor Bldg., Suite 804
400 First St., N.W.
Washington, DC 20001

Director of Research

J. E. HANSEN
601 W. Golf Road
Mount Prospect, IL 60056

Grand Lodge Representatives

W. B. HARWELL, JR.
601 W. Golf Road
Mount Prospect, IL 60056

R. R. MITCHELL
1833 Pembina Highway, Apt. 200
Winnipeg R3T 2G6,
MB, Canada

Special Representative

B. H. STEUERWALD
Railway Labor Bldg., Suite 804
400 First St., N.W.
Washington, DC 20001

Board of Trustees

W. W. LAUER, *Chairman*
122 W. Franklin Avenue
Monmouth, IL 61462

G. A. HARRINGTON, *Secretary*
P.O. Box 489
Cheraw, SC 29520

JOHN MCCORMICK, *Member*
10369 Belleville Ave.
Montreal N, PQ, Can. H1H 4Z6

Chamberlain's Message

Signalmen are "men of the year"

A recent editorial by Robert G. Lewis, publisher of *Railway System Controls,* clearly and accurately points out the important role signalmen are currently playing and will continue to play in improving and rebuilding the nation's railroads. Mr. Lewis forecasts considerably more work for signalmen, and there is no question but that the future is bright for our skilled craft. The article appears in a management magazine and we trust that the signal engineers get the message and govern themselves accordingly. We think you'll find the article informative and interesting, so here is "Railway Signalman—'Most Wanted' Man of the Year", reprinted with permission from the September 1974 issue of *Railway System Controls.*

What is ahead for the railway signalman in the next decade? Will the C&S departments gain in stature? How will the situation in the northeast affect the lives and fortunes of those who are readers of this specialized magazine? And of those who are associated with the manufacturing arm of the C&S departments—those who supply the tools, the hardware and much of the technology that keeps the trains running and that keeps them apart?

The answers to all these questions just have to be favorable ones. If you could chart C&S activity, the upward line would burst out of the upper right hand corner of the chart.

At first glance the situation in the northeast appears to be one of doom and gloom. Under the Regional Rail Reorganization Act of 1973, substantial mileage is to be abandoned. Yards and terminals are to be combined. But the Act also mandates that Conrail "operate and modernize parts or all of the restructured system." That is where C&S comes in. Clearly the surviving lines are going to have to become arteries through which increased and concentrated traffic flow efficiently. They will have to incorporate the most modern signaling systems, the most effective communications and controls, and the latest in facilities for yards and terminals. They will require increased and improved protection of crossings at grade. They will have to be maintained in tip-top condition.

Increased expansion of Amtrak nationally, the restoration of passenger services over freight-only lines, and the development of high-speed intercity services all will accentuate the demands for modernizing signaling, communications and controls. Present planning even contemplates development of alternate freight routes where high speed passenger services are to be developed and expanded, requiring near-exclusive use of those routes. Rapid transit developments, too, point toward increased demands on the signalman as planners increasingly eye rail routes out of their cities for development of low cost transit rights-of-way.

Electrification, which seems certain to be in the future of many high density rail lines, freight and passenger alike, will create great demand for the services of the C&S department. Entire main lines may have to be resignaled, first for compatibility with electrification, and second to handle increased movements at accelerated speeds.

Where will the money come from to pay for these extensive and ambitious projects? That is less a problem than it has been in recent memory. For the bankrupts that are to be included in the ultimate Conrail system, there are $100's of millions available—$500 million for corridor improvements alone. For the railroads nationwide, the landmark 10% freight rate increase granted by the ICC in June specifies that the carriers must spend all the increased revenues for capital improvements, or for catching up on deferred maintenance, after allowing for increased costs of materials. That will add up, it is estimated, to $1 billion-plus. Amtrak has generous provisions for improvements on its own. A segment of the Highway Trust Fund is now available for grade crossing protection. More billions are to be made available for urban mass transit construction and expansion through federal funds matched at the local level. C&S and systems control budget, estimated to be $400 million for the Class I railroads in 1974, will be importantly, even dramatically, augmented in the years immediately ahead.

Retrenchment is not in sight. Rather, there will be a pressing demand for additions to C&S forces. There will be a shortage of skilled personnel, and a strong emphasis on training.

Those who supply the C&S departments of the railroads will have unprecedented demands for their equipment and services. Shortages, not orders will be their chief problems.

All signs indicate that the railway signalman will be the "most wanted" man of the year next year and for many years to come.

News

Signalmen work hard on Retirement bill override

A labor-management team descended on Washington last month to "advise" Congress of railroad peoples' desire that President Ford's veto of the Railroad Retirement Bill was unwise. By now the results are known, but for those who wish to relish the victory, here is the final count: House of Representatives voted 360 to 12 to override the Presidential veto, with the Senate voting 72 to 1 for override. Thus the revised Retirement Bill is law.

But behind that Congressional victory stands a concerted effort by both railroad labor and railroad management to win Congressmen over to the override. A joint union-railroad statement was distributed to all Congressmen before the historic votes were taken. But the real work was that of calling on individual Representatives and Senators alerting them to the importance of the retirement bill and asking for their support in overriding the veto.

Spearheading a Brotherhood of Railroad Signalmen's team was **Charles J. Chamberlain,** president, who directed BofRS operations on a crucial Monday through Wednesday, Oct. 14-16. Knocking on Congressmen's doors were vice-presidents **W. D. Best** and **Joseph W. Walsh;** and research director **John E. Hansen.**

An Oct. 14 Monday strategy meeting was held with both labor and management in attendance at Association of American Railroads' headquarters. **Stephen Ailes,** AAR, president and National Railway Labor Conference chairman **William Dempsey** represented management at this meeting. On labor side, BofRS Chamberlain also wore his chairman's hat for the Railway Labor Executives' Association. He was joined by **A. H. Chesser,** chair-

(Please turn page)

RESTRICTIONS COVERING EMPLOYEE FREE and REDUCED-RATE TRAVEL

I. **Prohibited Trains**

A. Effective September 3, 1974, through April 30, 1975, the following trains are prohibited to all employee free and reduced-rate travel, unless the traveler is in possession of a recognized Amtrak Pass Document which contains an endorsement reading "Restricted" or "good for Metrolinres and Turbotrains."

TRAINS

Turbotrains—(Boston to New York route)
Metroliners—(All routes)

B. Effective December 13, 1974, through April 30, 1975, the following trains are prohibited to all employee free and reduced-rate travel. No pass document will be honored for transportation on these trains.

TRAIN NUMBERS	TRAIN NAME
83, 84	The Silver Meteor

II. Reservation Limitations: Effective Sept. 3, 1974, through April 30, 1975.

A. Reservations may be made for trains not prohibited in section I, according to the following regulations.

B. Reserved space (first class and coach) is prohibited to all free and reduced-rate travelers unless reservations are made within 24 hours of publishing departure time from the city of passenger boarding, or unless the traveler is in possession of a recognized Amtrak Pass Document which contains a "Positive Space" endorsement.

C. All sleeping car space must be secured through the procedures outlined in section IIB. No sleeping car space may be secured aboard trains.

National Agreement Book

We are preparing a book that will contain the basic provisions of national agreements negotiated with a majority of the U.S. railroads on which the BofRS has collective bargaining agreements. It will be a loose-leaf binder with space for the schedule agreement on an individual railroad. Certain sections must be amended to reflect if, and to what extent, a certain agreement or portion thereof has been accepted or amended on an individual railroad. Such additions or amendments will be the responsibility of the purchaser.

The book, consisting of about 350 pages, will include summary of wages and other benefits; Washington Job Protection Agreement; Eastern Carriers Union Shop Agreement of 8/29/52; vacation agreement and interpretations; paid holiday rules; claim and grievance handling rule; force reductions; 2/7/65 Agreement and official interpretations thereto; Award of Arbitration Board 298 and interpretations thereto; off-track vehicle accidents; jury duty; overtime; camp cars; apprentice programs; change of residence; earnings deduction in discipline cases; supplemental sickness benefits; union dues checkoff; AMTRAK protective conditions; and a brief summary of Travelers benefits.

Copies of the **Master National Agreement Book** are priced at $5.95 if ordered before Jan. 1, 1975; and $7.95 after that date. Orders must be postmarked Dec. 31, 1974 or earlier to receive the discount price. To order, please fill out the coupon below, and mail with check or money order payable to R. T. Bates.

Please send me _____ copies of the **Master National Agreement** book at $5.95 per copy.

Name_____

Title_____ Local No._____

Address_____

City_____

State and Zip_____

Send order with payment to **R. T. Bates, Secretary-Treasurer, Brotherhood of Railroad Signalmen, 601 W. Golf Rd., Mt. Prospect, IL 60056**

News Cont'd

man of the Congress of Railway Unions, and president of the United Transportation Union.

Other key people on the union side in the effort to convince Congressmen were **Jim Snyder,** UTU's legislative representative; and three very active leaders in the Brotherhood of Railway and Airline Clerks: president **C. L. Dennis;** international vice-president **L. E. Dennis;** and legislative representative **Jim Kennedy.** BRAC was very effective in turning out "instant" press releases and a statement by president Dennis that brought the message to Congress. All in all, it was a case of concerned labor people working to get their views known to Congress—and it paid off.

BofRS men appointed to labor committees

Three men from the Brotherhood of Railroad Signalmen's Grand Lodge Headquarters have been appointed to committees of the U.S. Department of Labor's Research Advisory Council for 1974-75. **Willis D. Best,** vice-president, has been appointed to the committee on prices and living conditions. **John E. Hansen,** director of research, has been appointed to the committee on productivity, technology and growth, and the wages and industrial relations committee. **Robert W. McKnight,** editor and manager, The Signalman's Journal, was named a member of the committee on occupational safety and health statistics, and the committee on manpower and employment.

The following attended the C&NW general committee meeting in Madison, WI. Seated left to right are: **W. D. Best,** BofRS, vice-president; **Arthur E. Nenn,** system secretary-treasurer; **Henry S. Gerth,** general chairman; **Vincent D. Unger,** local 108 and elected vice-general chairman. Standing left to right are: **Keith Van de Walker,** local 98; **Phillip R. Singletary,** local 39; **A. T. Olson,** local 168; **John E. Hansen,** BofRS director of research; **Henry DePaepe, Jr.,** local 130; and **William Kennedy,** local 43.

C&NW general committee meets in Madison, WI

Chicago & North Western system's general committee met July 26-28 in Madison, WI. **Vincent D. Unger,** local chairman of Illinois local 108 was elected vice-general chairman and trustee succeeding **John E. Hansen,** appointed director of research, at BofRS headquarters.

Trustees H. DePaepe, J. Hansen and A. Olson met with secretary-treasurer A. E. Nenn on the evening of July 26 and audited the treasurer's books, finding them correct and in order.

On the 27th, general chairman **Henry S. Gerth** called the meeting to order with all members present. They are: **Henry DePaepe, Jr.,** chairman of local 130; **William Kennedy,** chairman of local 43; **Arthur E. Nenn,** local chairman J. C. Gerke local 9; **Aubrey T. Olson,** local chairman Omaha local 168; **Phillip R. Singletary,** local chairman, Madison local 39; Vincent D. Unger, local chairman, Illinois local 108; and **Keith W. Van de Walker,** local chairman Maple Leaf local 98. Also present were **W. D. Best,** BofRS vice-president and director of research, BofRS, John E. Hansen.

Various reports and claims were discussed by chairman Gerth. Also, he reported on the Section 6 notice served on the railroads. Vice-president Best discussed making the FRA signal tests, the health and welfare benefits and supplemental hospital insurance available to BofRS members.

R. W. Russell, C&NW vice-president personnel and labor relations, discussed train lineups, motor-car setoffs and safety problems. A question and answer period helped to improve understanding between the BofRS members and C&NW management. Also discussed were train lineups, motor car setoffs and safety problems.

Attorneys Rerat and Heil spoke on the necessity of filing claims for on-the-job injuries.

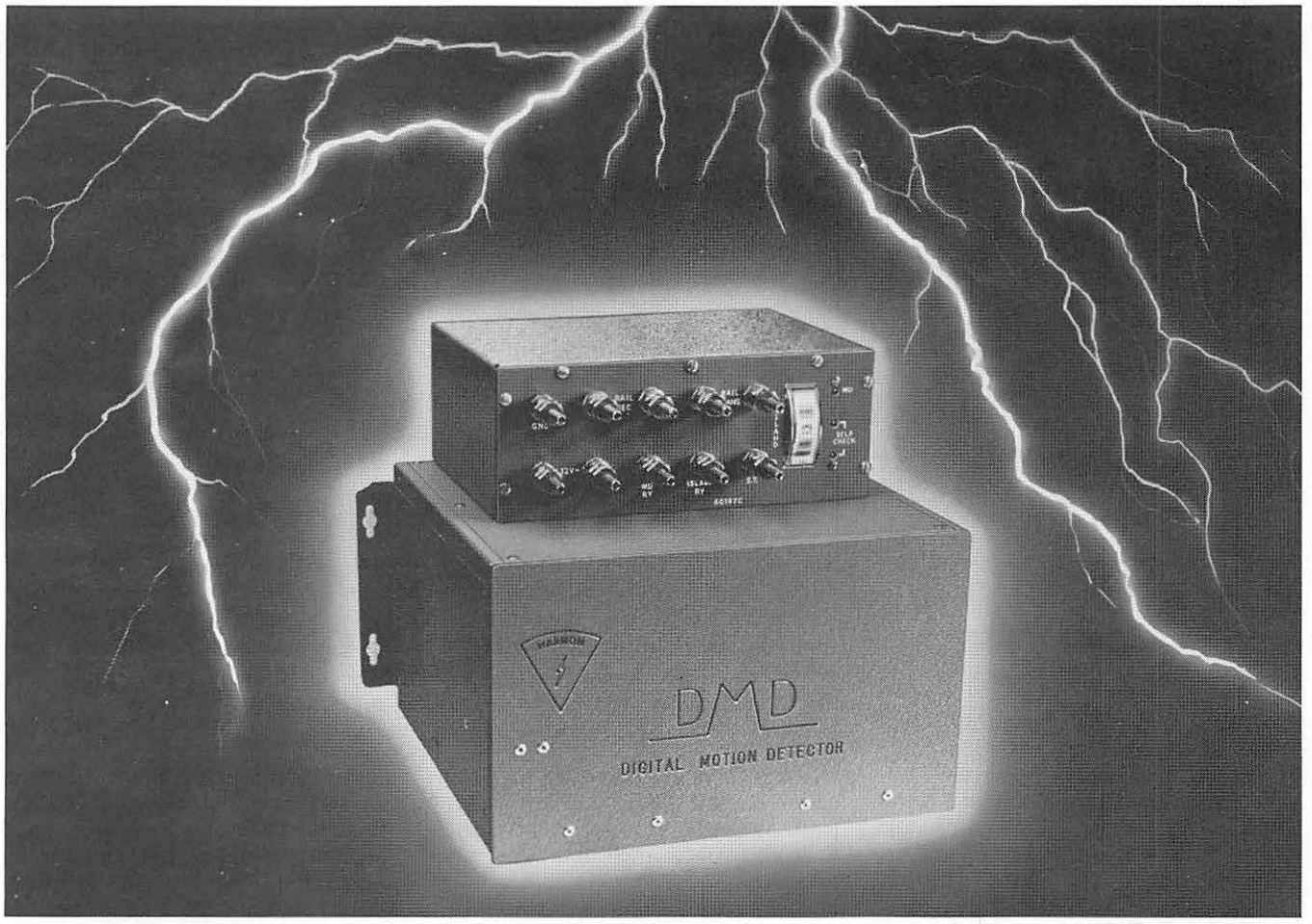
New by-laws for the system committee were read and accepted with minor changes or revisions.

Local 113 met at Conneaut, Ohio

Norfolk & Western Austin local 113 met Sept. 29 at Conneaut, Ohio. Chief signalman **Les Johnson** presided. Chaplain **David Hatfield** led the members present in the opening prayer. Other members present included **John Berta, James Curry, John Dean, Larry Erickson, James Hatfield, Donald Hudson, Ora Marsh,** and **Lyle Stephenson.**

Walter Barrows and **Laurence Holmer** were accepted into the Brotherhood of Railroad Signalmen by Austin local 113.

General chairman **V. J. Sartini** said he would check into a situation which local 113 members are finding quite often, namely that of calling a maintainer to shoot several cases of trouble on one call. These "gang" calls may involve a maintainer's own territory or any other territory where trouble occurs. Sartini also told members that a Section 6 notice had been served on the N&W about wage and fringe benefits.



Harmon's Digital Motion Detecter

It Protects Better... We Protect it Better.

The Digital Motion Detecter now incorporates lightning protection so complete we can warranty* the entire unit against all lightning damage for a full year.

Harmon has engineered the biggest advance in grade crossing protection in years. It's not <u>just</u> engineering. We call it value engineering. We figure out everything it will take to do a total job, then we package it for easy installation, dependability, and easy maintenance. Look at what's built into the DMD, and you'll understand why we're behind it all the way:

- Stand alone protection in one box.
- Maximum sensitivity to any approaching train.
- Minimum effect by ballast variations.
- Broken rail protection.
- Self checking circuit.
- Built-in FM island.
- Low power consumption.
- Drift-free digital circuit techniques.
- Simplicity of installation and adjustment.
- <u>Plus</u> sophisticated equalization circuitry for lightning protection.

For the ultimate in crossing protection control, and the ultimate in buyer protection, specify Harmon's DMD. Backed by unexcelled field service and the <u>first full warranty.*</u> Why settle for less?

Harmon Electronics

Dept. SMJ-11
Grain Valley, Missouri 64029
816/249-3112

*In addition to our standard warranty, Harmon Electronics warrants the DMD against damage of any kind due to lightning for a period of one year from date of shipment. Valid only when installation instructions are followed.

Serving North America's railroads yesterday, today and tomorrow.

THE SIGNALMAN'S JOURNAL

Signal training makes gains

Key members of Communication & Signal Section, AAR, Committee G—Education & Training at Atlanta annual meeting: Left to right are: **William H. Cumberland,** senior consultant, CN training services; **Richard G. Nolting,** communications supervisor, C.&N.W., and vice-chairman Committee G; **Robert L. Schmidt,** engineer signal training, BN; and **Glenn A. Robertson,** training development officer, CN, and chairman, Committee G.

Signal training programs are gaining momentum on U.S. and Canadian railroads. A survey by the Communication & Signal Section, AAR, revealed that of 28 roads asked, 12 have formal training for signalmen. Ten of the 12 have signed formal agreements with the BofRS. Also revealed by the survey is that nine railroads require employees to participate in the formal training. Ten roads require trainees to pass the courses in order to continue working in the signal department.

Burlington Northern got its signal training program going in about 8 months, according to Robert L. Schmidt, engineer signal training, who described the program at the C&S Section Committee G—Education & Training workshop. In August, 1972 BN began work on it and opened its St. Paul classroom on April 2, 1973. "Our training goals were to improve the over-all maintenance and construction work of our signal department; increase employee morale and reduce the turnover of people that had occurred during the last two years. Two other points were relevant to our objectives: we had to actually show the signal employee what his job is, how it fits into the overall function of the railroad; and secondly, teach him the technical skills that would be required to make him a good signalman," Schmidt said.

The commencement date for the program was April 1, 1973, and BN had about 120 men that had to be trained as of that date. All personnel hired subsequent to Sept. 30, 1971 would take part in the training program or others who had not completed their third training period. The program is essentially for assistant signalmen.

The basic BN program consists of classroom training, home study and on-the-job training. Training can be materially expedited if home study is included, Schmidt said. BN provides 7 weeks of formal classroom instruction spread out over three years. After a new employee has completed his 2-months' eligibility period with BN, he is generally scheduled to begin his first week of classroom training about 4-5 months later.

In addition to 8 basic training manuals, BN provides each trainee with a course outline, including the home reading assignments, training goals, and what is expected of him. Other books, manuals and educational materials include AAR's Signal Training Bulletins, manufacturers' literature, Phillips "Railway Operation and Railway Signaling," plus U.S. Army manuals and technical training films that explain basic electrical concepts.

Some of the general training concepts or practices were described by Schmidt. Except for the first classroom day, the trainee receives a quiz to take home each night and study, because he will be required to take an examination the next morning. "It's our opinion, these quizzes drill a trainee on the im-

Number of Railroads Providing Training

Type of Training	Signal Electronics	Conventional Signaling	Solid State Systems
Formal classroom	2	7	3
Self-teaching Material	3	7	3
Correspondence Courses	4	1	----
Formal on-job	2	3	2

portant, relative information he has to know, and also builds his confidence and familiarizes him more thoroughly with the material.

"Essentially we show them how a system works, tell them in detail how it works, show them again, and then we have a hands-on time in the laboratory where they work with signal equipment and see the concepts they have learned in the classroom operate in actual practice. Trainees wire various kinds of circuits, and they also trouble-shoot circuits and equipment."

The following is a brief description of what is covered in each of the seven weeks of classroom and laboratory instruction.

First week: General orientation covering description of the signal department, how it fits in with the rest of the railroad, material describing signal equipment, glossary of terms the new signalman should know and the general relationship between electricity, the track circuit, the fail-safe principle and signaling. Also, about 4 hours are spent in the laboratory introducing the trainees to meters.

Second week: Basically dc theory is taught, along with energy distribution and track circuits. About 12 hours are spent in the laboratory setting up track circuits, adjusting them, and trouble-shooting.

Third week: Automatic block signaling is the subject covered in classroom lectures and in about 24 hours of laboratory work.

Fourth week: Highway-railroad crossing warning systems are the subject of this week's instruction period with some 25 hours devoted to laboratory work using actual warning devices and controls.

Fifth week: Centralized traffic control is the subject, again with fairly heavy emphasis on laboratory work.

Sixth week: Interlocking plants and retarder classification yards. Also time is spent on making FRA tests and how to fill out the various inspection and test forms required by FRA and the railroad.

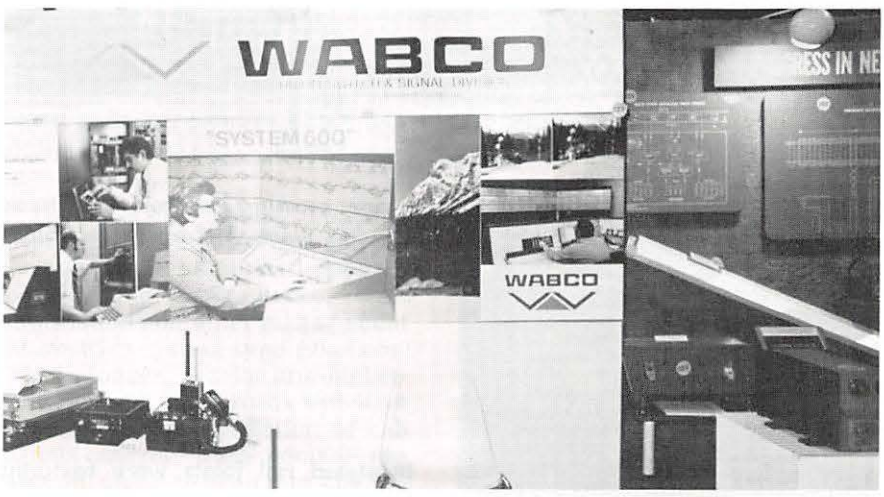
Seventh week: Electronics in signaling, with emphasis on hotbox detectors, Grade Crossing Predictors, motion sensors, audio frequency track circuits, etc.

Progress in the program has been as follows, Schmidt said: 160 men have completed Week No. 1 of training; 100 have completed Week No. 2; and 70 have completed Week No. 3; and BN should be starting Week No. 4 about December 1. The

Signal equipment was on display

Computer-controlled ctc was exhibited by General Railway Signal.

Hotbox detectors and ACI were featured by Servo Corp. of America.



Union Switch & Signal (WABCO) featured **ctc and radio equipment.**

Personal Aids and News

Residual lump-sum death benefit is guaranteed says R. T. Bates

While the great majority of retired railroad workers have received much more in railroad retirement benefits than they have paid in retirement taxes, every railroad employee is guaranteed that he or his family will receive benefits totaling at least as much as the employee paid in taxes. This guaranty is in the form of a residual lump-sum death benefit. There is no comparable benefit available under social security.

The following questions and answers will help railroad families to understand who can get such a benefit and the circumstances in which it can be paid.

(1) Under what conditions is a residual payment made?

A residual payment is payable after an employee's death if he left no survivors who would be entitled to monthly benefits at that time or in the future. However, if there is a surviving widow who would be entitled to an annuity in the future, she can receive the residual payment by waiving her rights to such benefits before she reaches age 60 or at any age if she remarries.

(2) How much can this residual benefit amount to?

The residual payment before reduction for other benefits is an amount equal to the total of the employee's railroad retirement taxes, plus an allowance in lieu of interest. It is reduced by the full amount of any survivor benefits the family received, and by the amount of a regular railroad retirement annuity or any social security benefits based on the employee's railroad earnings.

The average residual payment during the first half of 1974 was about $5,500. The maximum residual amount, before any reduction for other benefits previously paid was $13,657 in July.

(3) What do I have to do for my wife to receive any residual payment which may be due upon my death?

Your wife is entitled to the residual payment if she was living with you at the time of your death, and provided further that you have not designated anyone else as beneficiary. When there is no eligible wife, the law provides for the residual to be paid to children, grandchildren, parents, brothers and sisters, or the employee's estate, in that order. If you have previously designated someone other than your wife as beneficiary, but now want your wife to receive the residual, it is important that you cancel that previous designation. To cancel or make a new designation, contact the U.S. Railroad Retirement Board.

(4) What if I don't want the residual payment to be made in the way the law provides?

Then, you should designate a particular person or persons to receive any residual due by filing a properly completed designation of beneficiary form (Form AA-11a) with the Board. If you name more than one person, you must indicate the share that you want each to receive. That form provides for a secondary group of beneficiaries to be named in the event the persons in the first group do not survive you.

Forms for designating beneficiaries can be obtained at any Board office or by writing to the Director of Retirement Claims, 844 North Rush Street, Chicago, Illinois 60611. Any Board representative will be glad to assist you in completing the form.

(5) I remarried last month. Ten years ago I named my first wife as a beneficiary for any residual payment. Does my present wife now automatically become my beneficiary.

No. Your first wife will still be your beneficiary for any residual unless you change your designation. However, only your present wife has rights to a widow's annuity. If you leave your present designation unchanged, your first wife will not receive any residual that may be payable until your present wife no longer has rights to a widow's annuity.

If you had not previously designated a beneficiary at all, then your present wife would be automatical-

CHANGE OF ADDRESS

Each member of the B. of R.S. in good standing is entitled to receive a copy of THE SIGNALMAN'S JOURNAL each month. If you change your address, or are not receiving the magazine regularly, fill in this coupon and mail to:

The Signalman's Journal
601 W. Golf Road
Mt. Prospect, Illinois 60056

Name _____

Lodge No. _____ Cert. No. _____

Street or Box Number _____ Apt. No. _____

City _____ State _____ Zip Code _____

portant, relative information he has to know, and also builds his confidence and familiarizes him more thoroughly with the material.

"Essentially we show them how a system works, tell them in detail how it works, show them again, and then we have a hands-on time in the laboratory where they work with signal equipment and see the concepts they have learned in the classroom operate in actual practice. Trainees wire various kinds of circuits, and they also trouble-shoot circuits and equipment."

The following is a brief description of what is covered in each of the seven weeks of classroom and laboratory instruction.

First week: General orientation covering description of the signal department, how it fits in with the rest of the railroad, material describing signal equipment, glossary of terms the new signalman should know and the general relationship between electricity, the track circuit, the fail-safe principle and signaling. Also, about 4 hours are spent in the laboratory introducing the trainees to meters.

Second week: Basically dc theory is taught, along with energy distribution and track circuits. About 12 hours are spent in the laboratory setting up track circuits, adjusting them, and trouble-shooting.

Third week: Automatic block signaling is the subject covered in classroom lectures and in about 24 hours of laboratory work.

Fourth week: Highway-railroad crossing warning systems are the subject of this week's instruction period with some 25 hours devoted to laboratory work using actual warning devices and controls.

Fifth week: Centralized traffic control is the subject, again with fairly heavy emphasis on laboratory work.

Sixth week: Interlocking plants and retarder classification yards. Also time is spent on making FRA tests and how to fill out the various inspection and test forms required by FRA and the railroad.

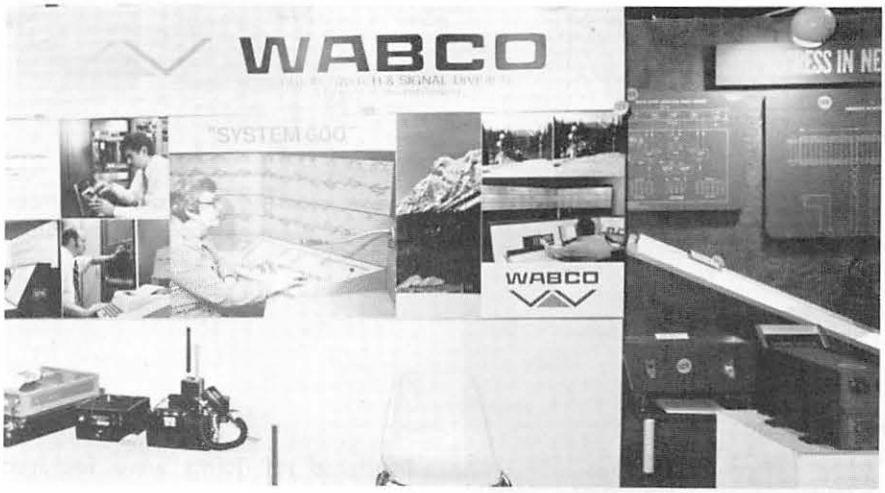
Seventh week: Electronics in signaling, with emphasis on hotbox detectors, Grade Crossing Predictors, motion sensors, audio frequency track circuits, etc.

Progress in the program has been as follows, Schmidt said: 160 men have completed Week No. 1 of training; 100 have completed Week No. 2; and 70 have completed Week No. 3; and BN should be starting Week No. 4 about December 1. The

Signal equipment was on display

Computer-controlled ctc was exhibited by General Railway Signal.

Hotbox detectors and ACI were featured by Servo Corp. of America.



Union Switch & Signal (WABCO) featured **ctc and radio equipment.**

Crossing warning systems highlighted Safetran's exhibit booth.

Exide featured **batteries** for signal systems.

Hotbox detectors were exhibited by Continental Quality Industries, Inc.

Grade crossing controls and track circuits were Harmon Electronics features.

Insulated rail joints were featured by 3M Company.

other weeks of training will be spaced at about 6-month intervals. Schmidt, incidentally, is administrator-instructor and THE MAN as far as training is concerned on BN. In addition to preparing material for the training, he prepares lessons, and works on the displays and equipment in the laboratory.

"So far, the feedback from the field has been pretty good, but we don't spend as much time as we should in the field to find out how we can make the training program more effective for the men in the field.

"As to the future, BN is planning for an abbreviated program for all maintenance personnel. It may be more in the concept of updating seminars to provide men with the latest information on maintaining and trouble-shooting of equipment, especially newer types. Also, we plan to have training for our supervisory personnel out in the field, both of a technical and management nature. For our future training plans to come to fruition, we would require one administrator and three full-time instructors. We are thinking about providing training centers at Kansas City and Spokane," Schmidt said.

Spacing of the classroom sessions is about 6 months apart, that is, a week in the St. Paul school, then 6 months out working in the field. Schmidt said that all expenses are paid for the men when they are in school—lodging, meals and also their wages. Travel to and from school is paid by the BN. Cost to the railroad is about $450 per week for each student, with the full 7-weeks' course coming to about $3,200 per student. Class size is held to about 10 students so as to enable the instructor to be able to provide personal attention. Students are expected to study nights while they are at the school.

"If a student doesn't pass one of the qualification exams held during the schooling—six in all—he is given 30 days to retake the entire examination. If he doesn't pass on the retake, he has to resign from the service of the company," Schmidt said.

Of the many signal systems and equipment on display at the C&S annual meeting, three items indicate the trends developing in signaling, namely more sophistication in equipment, test instruments, and new devices to help solve ecological problems.

Traffic Master II, the General

Railway Signal Co. centralized traffic control system features color video displays with NX (eNtrance-eXit) operation and management information system capability. CRT's provide for overview displays of the entire ctc system and a control display (one crt) can be used by the operator or dispatcher to select a specific controlled location. Each overview crt can display about 150 miles of road. The entire Traffic Master II is controlled by a minicomputer, which also provides the data such as keeping the dispatcher's train sheet.

In the realm of test instruments, Servo Corp. of America exhibited an improved Servotherm function simulator for use with its hotbox detector systems. The function simulator provides scanner calibration and alignment, system sensitivity adjustments, side-to-side channel comparison, gating checks, alarm circuit testing and adjustment and intermittent and noise problem trouble-shooting.

New retarder screech eliminator shoes can be installed on existing retarders. The WC-74-SE shoe creates an intermittent excitation of the car wheel-retarder shoe noise generating system to eliminate screeching when the braking force is applied. Western-Cullen Division, Federal Sign & Signal Corp., says the sound of the car moving through a closed retarder is reduced to a loud rumble. Test results indicate that peak noise using the W-C shoes is about 92-93 dBA compared to 125-127 dBA with conventional shoes. Average noise with the new shoes is 85 dBA compared to 115 dBA with conventional shoes.

Railroading 1980 and future trends in signaling were predicted by D. D. Huffman, vice-president engineering, US&S Division, WABCO. Here's what he sees coming:

Possible electrification with the view to providing onboard train control and the elimination of wayside automatic block signals.

Conversion to the metric system may be under way by 1980. Present indications are that a 10-year changeover period will be required.

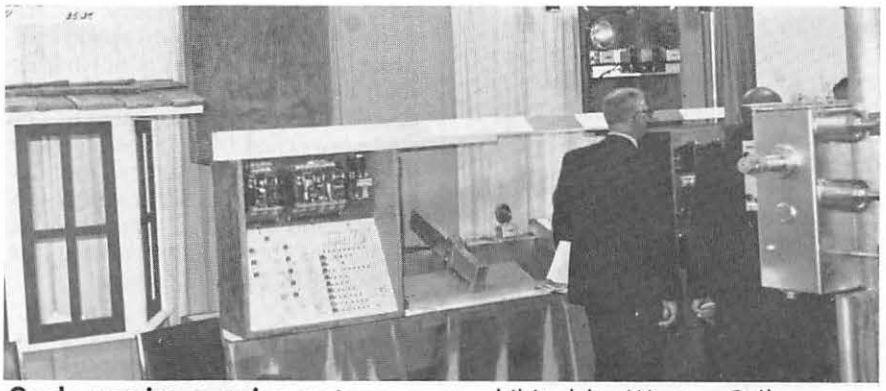
Upgrading of many older hump yards to automatic operation, and construction of new classification yards. Also conversion of some of the 1500 flat switching yards to automatic operation and control.

Consolidation of controls of centralized traffic control into major dispatching centers along with use of computers to handle automatic dispatching, event storage and recording, train identification, train location and performance, crew information and other management information system type functions.

With longer, heavier and higher-speed trains, many roads will have to consider the installation of cab signals and/or train control systems in order to maintain the operation and safety performance required.

OKONITE Cables for Every Ra
THE OKONITE COMPANY.
Wires and Cables for the Railroad and Rapid Transit Industries
Portable Television Set Prize Drawings

Signal wire and cable were exhibited by Okonite Company.



Grade crossing warning systems were exhibited by Western-Cullen.

Signal units are exhibited by Transcontrol Corp.

Signal batteries are featured by Nife, Inc.

RS&I

Sec. 236.305 Approach or time locking.

Approach or time locking shall be provided in connection with signals displaying aspects with indications more favorable than "proceed at restricted speed."

Sec. 236.306 Facing point lock or switch-and-lock movement.

Facing point lock or switch-and-lock movement shall be provided for mechanically operated switch, movable-point frog, or split-point derail.

Sec. 236.307 Indication locking.

Indication locking shall be provided for operative approach signals of the semaphore type, power-operated home signals, power-operated switches, movable-point frogs and derails, and for all approach signals hereafter installed, except light signals all aspects of which are controlled by coded track circuits or by double wire line circuits.

Sec. 236.308 Mechanical or electric locking or electric circuits; requisites.

Mechanical or electric locking or electric circuits shall be installed to prevent signals from displaying aspects which permit conflicting movements except that opposing signals may display an aspect indicating proceed at restricted speed at the same time on a track used for switching movements only, by one train at a time. Manual interlocking in service as of the date of this part at which opposing signals on the same track are permitted simultaneously to display aspects authorizing conflicting movements when interlocking is unattended, may be continued, provided that simultaneous train movements in opposite directions on the same track between stations on either side of the interlocking are not permitted.

Note: Relief from the requirement of this section will be granted upon an adequate showing by an individual carrier to allow opposing signals on the same track simultaneously to display aspects to proceed through an interlocking which is unattended, provided that train movements in opposite directions on the same track between stations on either side of the interlocking are not permitted at the same time.

Sec. 236.309 Loss of shunt at automatic interlocking.

At automatic interlocking, a loss of shunt of 5 seconds or less shall not permit an established route to be changed.

Sec. 236.310 Signal governing approach to home signal.

A signal shall be provided on main track to govern the approach with the current of traffic to any home signal except where the home signal is the first signal encountered when leaving yards or stations and authorized speed approaching such signal is not higher than slow speed. When authorized speed between home signals on route governed is 20 miles per hour or less, an inoperative signal displaying an aspect indicating "approach next signal prepared to stop" may be used to govern the approach to the home signal.

Sec. 236.311 Signal control circuits, selection through track relays, and through signal mechanism contacts and time releases at automatic interlocking.

The control circuits for aspects with indications more favorable than "proceed at restricted speed" shall be selected through track relays for all track circuits in the route governed, or through repeating relays for such track relays. At automatic interlocking, signal control circuit shall be selected (a) through track relays for all track circuits in the route governed and in all conflicting routes within interlocking limits or through repeating relays for such track relays; (b) through signal mechanism contacts or relay contacts closed when signals for such conflicting routes display stop aspects; and (c) through normal contacts of time releases for such conflicting routes or contacts of relays repeating the normal position of contacts on such time releases.

Sec. 236.312 Movable bridge, interlocking of signal appliances with bridge devices.

When movable bridge is protected by interlocking the signal appliances shall be so interlocked with bridge devices that before a signal governing movements over the bridge can display an aspect to proceed the bridge must be locked and the track alined, with the bridge locking members within one inch of their proper positions and with the track rail on the movable span within three-eighths inch of correct surface and alinement with rail seating device on bridge abutment or fixed span.

Sec. 236.313 Pipe for operating connections; requirements.

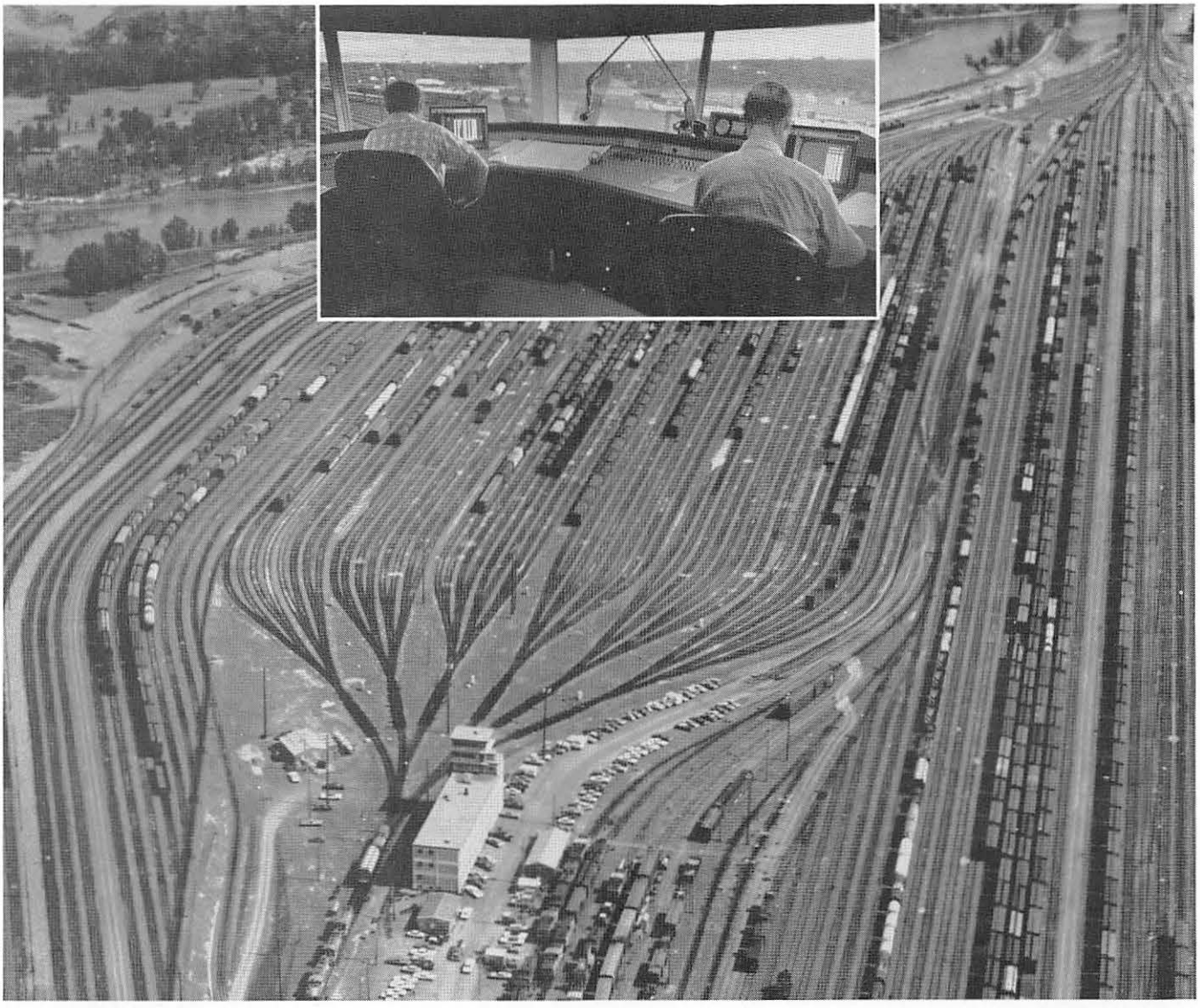
Steel or wrought-iron pipe one inch or larger, or members of equal strength shall be used for operating connections for switches, derails, movable-point frogs, facing point locks, rail-locking devices of movable bridge protected by interlocking, and mechanically operated signals, except up-and-down rod which may be three-fourths inch pipe or solid rod. Pipes shall be fully screwed into coupling and both ends of each pipe shall be riveted to pipe plug with 2 rivets. Pipeline shall not be out of alinement sufficiently to interfere with the proper operation of the interlocking, shall be properly compensated for temperature changes, and supported on carriers spaced not more than 8 feet apart on tangent and curve of less than 2° and not more than 7 feet apart on curve of 2° or more. With lever in any position, couplings in pipe line shall not foul carriers.

Sec. 236.314 Electric lock for hand-operated switch or derail.

Electric lock shall be provided for each hand-operated switch or derail within interlocking limits, except where train movements are made at not exceeding 20 miles per hour. At manually operated interlocking it shall be controlled by operator of the machine and shall be unlocked only after signals governing movements over such switch or derail display aspects indicating stop. Approach or time locking shall be provided.

To Be Continued

CONTROL FOR 3,000 CARS A DAY: WABCO CONTROL.



CP's Alyth classification yard can handle 3,000 cars daily. WABCO control systems make it possible.

As an incoming train rolls toward the hump, an automatic car identification scanner verifies the car's number. A computer, with the consist of the train, takes control of retarders and switches.

The computer continually updates information on the number of cars and their position on the destination track and calculates the distance the car must roll.

In micro-seconds, car length and speed are measured by radar. Measurements of its weight and "rollability" are made and signals are flashed to the retarders to apply just the right amount of braking for safe couplings.

The speed of the humping locomotive is automatically controlled from the crest.

Other devices perceive and make corrections for irregularities in the operation. In an emergency, the operation is automatically stopped.

The expertise that made this yard work can be put to work for you.

For more information on how WABCO systems can apply to your situation, write WABCO Transportation Systems Group, Union Switch & Signal Division, Westinghouse Air Brake Company, Pittsburgh, Pa. 15218.

Transportation from the word go.

The WABCO Transportation Systems Group is: Union Switch & Signal Division, Westinghouse Air Brake Division, WABCO Ltd., Cardwell Westinghouse Company, Freios e Sinais do Brasil, S.A. In Transportation, WABCO is also 17 European operations and licensees and agents throughout the world.

WABCO

An American-Standard Company

WU-7302

Personal Aids and News

Residual lump-sum death benefit is guaranteed says R. T. Bates

While the great majority of retired railroad workers have received much more in railroad retirement benefits than they have paid in retirement taxes, every railroad employee is guaranteed that he or his family will receive benefits totaling at least as much as the employee paid in taxes. This guaranty is in the form of a residual lump-sum death benefit. There is no comparable benefit available under social security.

The following questions and answers will help railroad families to understand who can get such a benefit and the circumstances in which it can be paid.

(1) Under what conditions is a residual payment made?

A residual payment is payable after an employee's death if he left no survivors who would be entitled to monthly benefits at that time or in the future. However, if there is a surviving widow who would be entitled to an annuity in the future, she can receive the residual payment by waiving her rights to such benefits before she reaches age 60 or at any age if she remarries.

(2) How much can this residual benefit amount to?

The residual payment before reduction for other benefits is an amount equal to the total of the employee's railroad retirement taxes, plus an allowance in lieu of interest. It is reduced by the full amount of any survivor benefits the family received, and by the amount of a regular railroad retirement annuity or any social security benefits based on the employee's railroad earnings.

The average residual payment during the first half of 1974 was about $5,500. The maximum residual amount, before any reduction for other benefits previously paid was $13,657 in July.

(3) What do I have to do for my wife to receive any residual payment which may be due upon my death?

Your wife is entitled to the residual payment if she was living with you at the time of your death, and provided further that you have not designated anyone else as beneficiary. When there is no eligible wife, the law provides for the residual to be paid to children, grandchildren, parents, brothers and sisters, or the employee's estate, in that order. If you have previously designated someone other than your wife as beneficiary, but now want your wife to receive the residual, it is important that you cancel that previous designation. To cancel or make a new designation, contact the U.S. Railroad Retirement Board.

(4) What if I don't want the residual payment to be made in the way the law provides?

Then, you should designate a particular person or persons to receive any residual due by filing a properly completed designation of beneficiary form (Form AA-11a) with the Board. If you name more than one person, you must indicate the share that you want each to receive. That form provides for a secondary group of beneficiaries to be named in the event the persons in the first group do not survive you.

Forms for designating beneficiaries can be obtained at any Board office or by writing to the Director of Retirement Claims, 844 North Rush Street, Chicago, Illinois 60611. Any Board representative will be glad to assist you in completing the form.

(5) I remarried last month. Ten years ago I named my first wife as a beneficiary for any residual payment. Does my present wife now automatically become my beneficiary.

No. Your first wife will still be your beneficiary for any residual unless you change your designation. However, only your present wife has rights to a widow's annuity. If you leave your present designation unchanged, your first wife will not receive any residual that may be payable until your present wife no longer has rights to a widow's annuity.

If you had not previously designated a beneficiary at all, then your present wife would be automatical-

CHANGE OF ADDRESS

Each member of the B. of R.S. in good standing is entitled to receive a copy of THE SIGNALMAN'S JOURNAL each month. If you change your address, or are not receiving the magazine regularly, fill in this coupon and mail to:

The Signalman's Journal
601 W. Golf Road
Mt. Prospect, Illinois 60056

Name _____

Lodge No. _____ Cert. No. _____

Street or Box Number _____ Apt. No. _____

City _____ State _____ Zip Code _____

ly eligible for any residual due upon your death, if she was living with you at that time. It is important to remember that once a beneficiary designation is filed with the Board, it will not be changed unless you either cancel it or file a new one. Also, it is not necessary to file any designation of beneficiary at all in order for any residual due to be paid in the way the law provides as indicated in question 3.

(6) I am a 48-year-old widow and have no children. Can I receive any residual payment due, now, instead of waiting to receive a widow's annuity when I become 60 years of age?

Yes, if you were living with your husband at the time of his death and as long as no one else was named as beneficiary, you can elect to waive your rights to the future annuity anytime before you become entitled to monthly benefits. Monthly benefits are payable to a widow at age 60, or between the ages 50 and 59 if she becomes totally disabled, or at any age if she is caring for minor or disabled children.

(7) I am a 40-year-old widow with preschool children, but I am working full-time so I am not receiving monthly benefits on the basis of caring for the children. Can I elect any residual payable now?

No, because monthly benefits are payable to your children. When there are no further benefits payable to the children, and if you are under age 60 at that time, you can inquire at the Board if a residual would be payable at that time. However, by that time, the benefits paid your children should have exceeded the amount of your husband's railroad retirement taxes.

(8) My husband worked in employment covered by both railroad retirement and social security before he died. Could I elect to receive any residual payment and still keep my rights when I become eligible to a benefit based on my husband's social security earnings?

Yes, but you will have to sign a waiver of any future rights to benefits based on your husband's railroad earnings. This will not affect any rights you may have to a social security widow's benefit based on your husbands social security credits alone.

(9) I am the widow of a railroad employee with no minor or disabled children and have recently remarried. Can I now claim any residual payment due?

Yes, any residual would be payable to you as long as you had been living with your husband at the time of his death. Since you will not be entitled to monthly benefits from the Board, it would be a good idea for you to inquire about the residual payment. Any Board office can furnish you with the information.

(10) I won't be eligible for my widow's annuity for some years. How can I find out whether I am better off waiting instead of electing any residual payment in the meantime?

The best thing to do is visit your nearest Board office for help in making a proper decision in your own case.

The most important facts to be taken into account are as follows:

- Your present age, and the state of your health in relation to the number of years you must wait for your annuity to begin.
- The amount of the residual you would receive compared to the value of your future railroad annuity.
- The amount of the residual you would receive compared to the value of any future social security benefit you might be entitled to based on your husband's social security earnings, if any.
- The amount of the benefit, if any, payable to you based on your own earnings or earnings of any individual other than your deceased husband.

Car financing costs more

By Sidney Margolius

Higher price tags on cars are influencing banks and dealers to extend installment contracts to as long as 48 months instead of the traditional 36 and sometimes 42-month payment plans. At the same time banks and finance companies have raised rates on car loans.

The result is, many families buying a car this year and undertaking the new longer contracts in order to manage the higher prices, may find they are paying as much as $1,000 and sometimes more just to finance it. That's more than the factory cost of the engine to operate the car.

The finance rates themselves have been creeping up all year, from a national average annual rate of a little over 10% last year to 11% now, and they're still moving up. Just as expensively, the contracts are getting longer. A year ago, 87% of the finance company contracts were over 30 months. The latest Federal Reserve figures show that 94% of contracts are longer than 30 months. Most significantly, the number of buyers assuming contracts over 36 months has tripled in the past year and now comprises one out of 12 new car buyers.

Actually, the increase in rates, while costly, still is not as potentially harmful to family finances as the tendency towards longer terms to make the higher costs of 1975 models easier to fit into family budgets. As the table of credit fees for different rates and maturities shows, even a jump from $6 to $8 per $1,000 does not raise total finance charges as much as an increase in terms from 24 months to 36, or 36 to 48.

There's pressure for the car rates to go up still further, reports Robert Jaynes, Director of Installment Lending for American Bankers Association. Only the usury laws in many states and the fact that banks have a long-term view on consumer loans is keeping consumer loan rates from rising further. At that, Jaynes reports, some banks are not seeking expansion of car loans and the Federal Reserve System itself is trying to dampen consumer borrowing.

Very long terms are hazardous in another way. A car loses about half its market value in two years. Thus, midway through a four-year contract you may find that the

(Please turn page)

COMPARATIVE ANNUAL CREDIT FEES ON A $1,000 LOAN OR INSTALLMENT DEBT

	Repaid Monthly In:		
Finance Charge	**24 Months**	**36 Months**	**48 Months**
$6 per $100	$120.00	$180.00	$240.00
$8 per $100	160.00	240.00	320.00
$10 per $100	200.00	300.00	400.00
$12 per $100	240.00	360.00	480.00
1% a month	125.00	185.00	243.00
1½% a month	187.50	277.50	367.50

PA&N Cont'd

market value is no more, maybe less, than the remaining balance you owe.

A family able to make a little larger down payment, even if it has to delay other installment purchases, can make dramatic savings. A four-year, $4,000 contract at $6 per $100 (the equivalent of an annual percentage rate of a little under 12%) will cost a total of $960 in finance charges. If you can put down $500 more and repay the $3,500 debt in three years, the total finance charge is $630. If you can make your original balance only $3,000 and repay 36 months, your finance cost is $540 and if you can manage to repay in 24 months, only $360.

Keep in mind that while you pay 11½-13% or more in true annual rates for a new car financing, and 18% or more for used-car financing through finance companies, your own savings may be earning only 5¼ to 7%. You, too, can be a banker—for your own purchases.

Hearing specialists to work on noise

Volunteer hearing specialists offer to help unions in the struggle against workplace noise. The Health Research Group, a Washington-based public interest group concerned with occupational health and safety, is planning and coordinating a nationwide drive against workplace noise.

As part of the drive, the Group has set up a Clearinghouse for professional hearing specialists around the country who have volunteered to work with local unions in their area which are seeking help on noise-induced hearing loss.

Over 300 of these hearing specialists (audiologists) from more than 40 states have volunteered their services to the Health Research Group's "audiology Clearinghouse." The Clearinghouse will furnish printed material on noise hazards to interested workers and will provide the names of audiologists from the union's geographical area who have offered their services.

The volunteer professionals can help unions in any of the following ways: speaking at a union meeting about noise and how it causes hearing loss; explaining how to recognize hazardous noise levels; teaching local members how to operate sound level meters; or conducting hearing tests on workers.

Although the Occupational Safety and Health Act regulations contain a legal limit for noise exposures, this limit is very often exceeded. Some unions, therefore, are trying to get guarantees that technological and engineering changes will be made in their workplaces to cut the noise levels. Documentation from surveys done by audiologists may help in this struggle. For example, last year volunteer audiologists conducted hearing tests on 80 members of the Washington, D.C. Newspaper Web Pressman's Union. More than one half of the men had a hearing loss at at-least one frequency tested. The results of the tests provided substantial support for union demands that engineering changes be made to cut the noise levels in the pressrooms.

If a local union is interested in being matched with a volunteer audiologist from its area, contact Andrea Hricko, Health Research Group, 2000 P Street, N.W., Suite 708, Washington, D.C. 20036. Please state the number of members in the local and type of plants at which the members are employed.

Seek and you will find the Union label.

Gloves: inside upper edge
Neckties: small end
Overalls: right hip pocket
Overcoats and topcoats: lining of inside pocket
Pajamas: front hem of coat
Shirts: bottom of front tail
Shoes: in insole, in front of heel on outer sole, or inside upper on lining
Suits: inside right breast pocket
Trousers: inside right back pocket
Work pants: inside right front pocket
Work shirts: bottom of front tail
Boys wash suits, snow suits, ski pants and legging suits: inside pocket
Heavy outerwear, rainwear, sportswear: lower pocket
Men's and boy's trousers, pants, slacks, knickers, knee pants, riding breeches: inside right hip pocket

BofRS safety and health forms available

On the opposite and following page is a form developed by the Brotherhood of Railroad Signalmen for reporting of situations and conditions that are potential violations of the standards for safety and health of the Federal Railroad Administration and the Occupational Safety and Health Administration.

"Such hazards would include any and all safety and health hazards that members might come in contact with in and around headquarters, on the right-of-way, in classification yards, on track cars, in rail-highway vehicles or trucks, buses and highway vehicles," says C. J. Chamberlain, BofRS, president.

This form can be used by simply tearing it out of this issue, filling in the requested information, and mailing the form to Grand Lodge Headquarters. The information will be forwarded to FRA and OSHA for further action. And action has followed previous complaints. A story in a future issue of TSJ will tell how FRA followed up a complaint we sent to them from one of our members concerning oil and grease spilled in the vicinity of car retarders making footing hazardous for signal maintainers. The result of the FRA inspection was that the railroad company placed fresh ballast in the area and cleaned the retarders making the entire area a safer place to work.

If you know about hazardous working locations that could be improved, fill out the form and send it to BofRS headquarters.

Local 31 to meet in New Stanton, PA

A special meeting of Monumental City Local 31 will be held on Saturday January 25, 1975 at the Holiday Inn in New Stanton, PA. The meeting plans to last from 12:15 to 3:00 p.m. and will be for a general discussion on rules and grievances, reports **Stanley R. Brooks**, recording secretary.

We have done so much
For so long
With so little
We are now qualified
To do anything
With nothing.

BROTHERHOOD OF RAILROAD SIGNALMEN
601 West Golf Road
Mount Prospect, Illinois 60056 DATE _____

COMPLAINT - OCCUPATIONAL SAFETY & HEALTH

This form is provided for assistance in filing complaint; it is not intended to constitute the exclusive means by which a complaint may be registered with the Federal Railroad Administration or Occupational Safety and Health Administration.

Please indicate your desire: [ ] My name may be revealed.

[ ] Do not reveal my name.

Name _____
(Person making complaint. General Chairman, Local Chairman or Member)

Street _____ Telephone _____

City _____ State _____ Zip Code _____

Employing Railroad _____

Location of Headquarters _____
(Street Address, Interlocking or Office)

_____
(City, State and Zip Code)

Describe the hazard or hazards which exist including the number of employes exposed to or threatened by such hazards, the railroad location by mile post and/or geographical location, and identification number of any equipment or motor vehicle (including track car or high rail car) involved.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Additional space is provided on the back of this form for description of hazard.

Description of hazard cont'd.:

To your knowledge has this violation been considered previously by any Government agency?

If so, please state the name of the agency

and, the approximate date it was so considered.

Is this complaint, or a complaint alleging a similar violation, being filed with any other Government agency?

If so, give the name and address of each.

To your knowledge, has this violation been the subject of any union/management grievance or have you (or anyone you know) otherwise called it to the attention of, or discussed it with, the employer or any representative thereof?

If so, please give the results thereof, including any efforts by management to correct the violation.

Obituaries

Dode T. Cason, retired signal maintainer, Santa Fe, died recently. He was employed on the Santa Fe for 41 years and retired in 1963. At the time of his retirement he lived in Pauls Valley, OK and later moved to Sulphur, OK. He was a member of Santa Fe Local 121.

James B. Morris, assistant engineer communications and signals, Norfolk & Western at Moberly, MO died recently.

Albert H. Asnicar, supervisor signals, at Denver, died April 4, 1974. He was 67 years of age.

William Thomas Huhn, signalman, Seaboard Coast Line, at Jacksonville, FL, died February 5, 1974.

Melville S. Jarrett, retired signal maintainer, Western Pacific, at Igo, CA, died October, 1973. Brother Jarrett was a member of Sacramento Local No. 179.

Willie W. Ayers, retired signal maintainer, Chesapeake & Ohio, at Covington, KY, died April 18, 1974 in Cincinnati. He was a member of Gateway Lodge No. 135. Mr. Ayers is survived by his wife, Viola; daughter, Kay Jones; brothers, Elmer, James; sisters, Nellie, Bessie, Dora; brother-in-law, Dallas Hofacker; five grandsons and one great-granddaughter.

The officers and members of Gateway Lodge 135 extend their sympathy and condolences to the family.

William A. Moyer, retired signalman, Reading, died recently. Brother Moyer had completed 42 years of service with the railway when he retired in 1957. He was a member of Reading Local 26 and at one time had been financial secretary.

Glenn C. Linden, of Ellensburg, WA, retired signal maintainer, Northern Pacific, died recently. Brother Linden had completed 38 years of service with the railroad when he retired in 1958. He was a member of St. Paul Local No. 87.

L. D. Pyrtle, of Bismarck, MO, and retired signal maintainer, Missouri Pacific, died recently. Brother Pyrtle had completed 44 years of service when he retired in 1967. He was a member of Missouri Local No. 72.

John E. Tendick of Arnold, MO, retired signal supervisor, Terminal Railroad Association of St. Louis, died recently. He retired in 1960 completing 45 years of service with the railroad and at one time had served as local chairman for St. Louis Terminal Local No. 132.

Carl Torren, retired signal foreman at Taunton, MA, died recently. Brother Torren had completed 49 years of service with the New Haven Railroad when he retired in 1966. He was a member of Pioneer Local No. 5 and following his retirement resided in Brockton, MA.

W. A. Galbraith, retired signalman, Santa Fe, died recently. He was a member of Carrollton Local No. 20. Following retirement he moved to Norco, CA.

Eugene H. Gaskill, retired signal maintainer on the Pennsylvania at Pittsburgh, died May 5, 1974 at his home in Burlington, WI. Brother Gaskill had completed 41 years of service with the railroad when he retired in 1960. He was a member of Greensburg Local No. 62.

Anthony D. Gallagher, retired signalman for the Pennsylvania, at Philadelphia, died recently at the age of 87. Upon his retirement in 1952 Brother Gallagher had completed 36 years of service with the railroad. He was a member of Philadelphia Local No. 18. The officers and members of Local 18 extend their deepest sympathy to his family.

William J. Ruf, retired signal maintainer, Baltimore & Ohio, at South Chicago, died June 25, 1974. He was 81. Brother Ruf had completed 40 years of service when he retired in 1958. He had been active in BRS affairs and while a member of Winton Local No. 94 he had served as recording and financial secretary.

Chester F. Hoedt, retired signal maintainer at Oak Harbor, OH, for the New York Central, died recently. Brother Hoedt had been active in the BRS and at one time had served as local chairman for Lake Shore Local No. 96. At the time of his retirement in 1957 he had completed 47 years service with the railroad.

John A. Challstrom, retired signal maintainer at Mt. Jewett, PA, for the former Buffalo, Rochester & Pittsburgh, now Baltimore & Ohio, died recently. Brother Challstrom was a member of Monumental City Local No. 31. He had completed 40 years service at the time of his retirement in 1957.

Ernest W. Whiting, retired signal maintainer at Buffalo, NY, for the Lehigh Valley, died recently. He was a member of Bison City Local No. 151. At the time of his retirement in 1956 he had completed 46 years with the railroad.

Albert Selwitz, retired C&S maintainer for the former Pennsylvania at Altoona, PA, died recently. He completed 45 years of service with the railroad when he retired in 1962.

George C. Strahle, member of Duclos Local No. 146, former Pennsylvania, died July 2, 1974 at Logansport, IN. He was born in Logansport September 15, 1909, the son of Charles and Elizabeth Berg Strahle. He was married October 23, 1943 to Mary Buck. He was a retired C&S maintainer on the Penn Central. He was a member of the St. James Lutheran Church, Elks Lodge and the Brotherhood of Railroad Signalmen. He first entered rail service as a signal helper May 25, 1929. He retired on disability in 1973. Surviving with his wife are son, Charles Thomas, Lafayette, IN; two sisters, Mrs. Frieda Tanguy, and Mrs. Erma Raber; two brothers, Robert and Fred, two grandchildren and several nieces and nephews. The officers and members of Local 146 extend their deepest sympathy to his family.

G. B. Musser, retired signalman,

Obits Cont'd

former Pennsylvania Railroad, and a former member of Philadelphia Local No. 18, died September, 1973.

A. A. Murray, retired signalman, former Pennsylvania Railroad, at Cresson, PA, died recently. He was a former member of Greensburg Local No. 62.

R. J. Zeitler, retired signal maintainer, Chicago & North Western at Sheboygan, WI, died recently. Brother Zeitler completed 40 years service on the railway when he retired in 1957.

T. C. Price, retired signal maintainer at Oakvale, WV, on the Norfolk & Western, died recently. He had completed 47 years service with the railway when he retired in 1957.

E. V. Grayson, retired signalman on the Missouri Pacific, and a former member of Missouri Local No. 72, died recently in Corning, AR.

John A. Mitchell, retired signalman, with the Boston & Maine and a member of Bay State Local 120, died recently at Bellows Falls, VT.

Hugh McDonald, retired signalman at Chatham, ON, died recently.

Homer C. Strang, retired signal foreman of the New York Central-Lines East, Buffalo, NY, died recently. He had completed 41 years of service when he retired in 1953.

W. F. Sisson, retired signalman, on the former Northern Pacific at Missoula, MT, died recently. He was a former member of St. Paul Local No. 87.

T. E. Keithley, retired signal maintainer, Burlington Northern at Downers Grove, IL, died July 25, 1974. He retired in 1973 following 28 years of service on the railroad. He was a member of Aurora-Galesburg Local No. 103. He had served as local chairman and chaplain of the Local. Upon his retirement he moved to Hannibal, MO.

Grant Ward, retired telephone and signal maintainer at Mansfield, OH, on the former Pennsylvania, and a member of Unity Local No. 2, died July 5, 1974 at Columbus, OH. He was 87. Brother Ward started his career in 1914 in Loudenville, OH, as a lampman. Many old time signalmen can recall when the lampman position was the start of a signal career. Lampmen could be found until the end of World War II. In 1916 he went to Wooster, OH where he was signal maintainer. From 1938 until 1952 he was signal maintainer and testman at Mansfield, OH. At the time of retirement in 1952 as signal maintainer in Mansfield, OH, Mr. Ward had completed 39 years of service with the Pennsylvania Railroad. The officers and members of Local No. 2 extend their deepest sympathy to his family.

J. B. Rose, Sr., retired assistant maintainer, former Aaltantic Coast Line at Emporia, VA, died July 16, 1974. He was a member of former ACL Local No. 84. At the time of his retirement in 1963 he had completed 40 years of service with the railroad.

Harry W. Schory, retired signalman, former Pennsylvania at Philadelphia, PA, died July 9, 1974. Brother Schory had completed over 39 years of service with the railroad when he retired in 1959. He was a member of Philadelphia Local No. 18.

J. B. Stoner, retired signal maintainer at Hobart, IN, for the former Nickel Plate, now N&W, died January 18, 1974. At the time of his retirement in 1963 Brother Stoner had completed 50 years service with the railroad. He was a member of former Nickel Plate Local No. 166.

Henry C. Galske, retired signal maintainer, Elgin, Joliet & Eastern at Spaulding, IL, died recently. He was a member of Joliet Local No. 97. At the time of his retirement in 1960 he had completed over 50 years service with the railroad.

Richard McLeod, member of Local 189, signal maintainer, Canadian Pacific Ry. at Algoma, ON, died July 20, 1974. The officers and members of Local 189 extend their deepest sympathy to the members of his family.

Walter Duhadaway, member of Local 53, Reading Railroad at Philadelphia, PA, passed away May 4, 1974. At the time of his death Brother Duhadaway was employed as a signal repairman in Wayne Junction Relay Shop. He is survived by his wife, Alma, and one daughter. The officers and members of Local 53 extend their deepest sympathy to his family.

Eugene Borley, retired signalman on the Long Island, died October 14, 1973. Brother Borley retired in 1958 after having served 43 years on the Long Island. He was a member of Aeriel Local No. 56, and he had worked at Jamaica, NY.

J. J. Strobel, a retired signal maintainer on the Rock Island at La Porte City, IA, died July 31, 1974. He was a member of Local No. 183, Brother Strobal was 65. He began working for the Rock Island in April of 1949. The officers and members of Local No. 183 extend their deepest sympathy to his family.

Myron A. Tracy, retired member of Illinois Central Gulf, died August 8, 1974. He was 84. He had been a member of East Dubuque Local 29 and had been active in the Brotherhood affairs for many years. The officers and members of Local 29 extend their deepest sympathy to his family.

Leonard L. Mangels, signalman, Illinois Division, Chicago, Rock Island and Pacific, died recently. He was a member of Rock Island Local No. 183.

Hilt McGuire, a member of Local 183 and a signalman on the Rock Island, Illinois Division, died recently.

James Ponisi, retired signal maintainer for the former Pennsylvania at Newark, NJ, died June 14, 1974. Brother Ponisi was a member of Local No. 25 and he retired in 1957 after completing 48 years of service with the railroad.

Joseph A. Beauregard, retired signalman, Delaware & Hudson, died July 20, 1974. He had been a member of Local No. 147.

Roy A. Murphy, retired signal maintainer, Pennsylvania-Reading Seashore Lines at Camden, NJ, died recently. He retired in 1964 after having served almost 47 years with the railroad. He was a member of Victor Local No. 58.

Railroad Retirement Benefits

I General

Benefit Provision	Old RR Retirement	Social Security	New RR Retirement
Basic eligibility requirements	Minimum of 10 years of service required for any benefit, except residual payment. Completely insured status required for any survivor insurance benefit, except that widowed mother's, child's and lump-sum benefit may be based on partially insured status. (See next item.)	Fully insured status required for all benefits, except lump-sum death benefit, widowed mother and survivor child benefits which may be based on currently insured status.	Minimum of 10 years of railroad service required for any benefit, except residual payment. Current connection[1] required for survivor benefits.
Insured status	Employee completely insured at death if he had 10 years of railroad service, current connection,[1] and would have been fully insured under Social Security. For partially insured status, same as above, except that employee would have been currently insured under Social Security. If insured under RRA, Social Security will not pay benefits on the earnings of the deceased employee.	Employee is fully insured if he has 40 quarters of coverage or at least 6 quarters and 1 quarter for each year elapsed after 1950 (or age 22) and before age 62,[2] onset of disability or death; and currently insured if he has 6 quarters of coverage in the 13 quarters preceding death. A quarter of coverage is a calendar quarter with earnings of $50 or more.	No insured status requirement, as such. See above.
Work restrictions	Benefits not payable for any month annuitant is in railroad employment or, for retirement cases, in service of last nonrailroad employer. For monthly survivor benefits and for payments under the special guaranty the social security restrictions apply. In addition, disability annuitants lose 1 month's annuity for each $200 of earnings in excess of $2,400 in a calendar year with no deductions for months with earnings of $200 or less.	Benefits reduced by $1 for each $2 of annual earnings in excess of $2,400; except no reduction for months with earnings of $200 or less or for months after attaining age 72. No restrictions for disability beneficiaries, except that benefit can be terminated for substantial gainful employment.	Work restrictions on employee and spouse annuitants and earnings limitations on disability and survivor annuitants contained in present railroad retirement are retained in the proposed railroad retirement. In addition, if the employee would be fully insured under the Social Security Act on the basis of railroad earnings after 1974 and social security earnings, the social security earnings limitations will apply to a portion of the employee's annuity and the annuity of his spouse. Survivor annuities will, as under the present railroad retirement, be subject to the social security earnings limitations and will not be payable for any month in which the survivor engages in railroad employment.

(Please turn page)

Old RR Retirement	Social Security	New RR Retirement
Dual benefit restrictions		
No restrictions on receipt of more than one type of benefit under Railroad Retirement Act, except that individual entitled to more than one survivor's insurance annuity receives only largest one. Individuals receiving both Railroad Retirement and Social Security benefits receive partial reduction in former for increases in latter based on 1965, 1968 and 1970 Social Security Act amendments. Also, employee receiving supplemental annuities do not receive 7% increase of 1966 amendments.	Individuals entitled to more than 1 benefit of any kind are paid on amount equal to the largest of them.	Employees cannot receive both a railroad retirement annuity and a social security benefit based on their own earnings, but will receive a social security level annuity component based on combined railroad and social security earnings. Social security level component of railroad retirement spouse's and survivor's annuities reduced if the spouse or survivor is entitled to a social security benefit based on her own earnings. Social security spouse or survivor benefit reduced if the spouse or survivor is entitled to a railroad retirement employee annuity. "Windfall dual benefits" provided where employee "vested" under both railroad retirement and social security on December 31, 1974, and also where the spouse or survivor was vested under one Act on that date and her or his husband or wife was then vested under the other Act. Railroad retirement spouse or survivor annuity reduced by the amount of any railroad retirement employee annuity payable to the spouse or survivor if both the spouse or survivor and the employee husband or wife first entered railroad service after 1974. Survivor or spouse receives only one railroad retirement survivor or spouse annuity; if entitled to more than one receives only the larger unless elects to receive the smaller.
Military service		
In war service or national emergency period, whether before or after 1937, if preceded by railroad service in same year or year preceding entry into military service. Reduced for receipt of any other Federal benefit based on same service.	After 1936 and before 1957 if war service or national emergency period if not used for any other Federal benefit, except VA benefit. After 1956 treated as regular earnings but still cannot be used if some other Federal benefit, except	Same as under present (old) railroad retirement.
	II Retirement Benefits	
Aged employee		
Full annuity at age 65, or for women with 30 years of service at age 60. Reduced annuity at age 62, or at age 60 for men with 30 years of service. Men retiring after July 1, 1974, also eligible for full annuity at age 60 with 30 years of service.	Full primary insurance amount (PIA) at age 65. Reduced benefit at age 62.	Full annuity at age 65 or at age 60 with 30 years of service. Employees under age 65 deemed to be age 65 for purposes of computing social security level annuity component. Reduced annuity at age 62 with less than 30 years of service.

Old RR Retirement	Social Security	New RR Retirement
Disabled employee		
Occupational disability, at age 60, or at any age after 20 years of service (current connection required[1]). Total disability, at any age.	No provision. Total disability only, 20 quarters in last 40 preceding disability (special provisions for blind and for young workers under age 31) and has completed a five month waiting period.	Same as under present (old) railroad retirement. Disabled employee deemed to be entitled to social security disability benefit for purposes of computing social security level annuity component.
Supplemental employee annuity		
Age 65, 25 years of service, no service after closing date, regular annuity awarded after June 1966 (current connection required [1]).	No provision.	Age 65 or age 60 with 30 years of service, 25 years of service, current connection, no service after closing date. Regular annuity awarded after June 1966 or, where eligibility based on age 60 with 30 years of service, after June 1974. Supplemental annuity smaller than under present railroad retirement but, unlike present (old) railroad retirement, causes no reduction in regular annuity.
Wife or dependent husband		
Retired employee must be age 65. Full annuity at age 65 or with child (under 18 or disabled) in wife's care. Reduced annuity at age 62 (reduction is 1/180 for each month under age 65).	Employee awarded old-age or disability benefit. Full benefit at age 65 or with child (under 18 or disabled) in wife's care. Reduced benefit at age 62 (reduction is 1/144 for each month under age 65).	Retired employee must be age 60 with 30 years of service and employee's annuity began after June 1974, or, if less than 30 years of service, must be age 62 and employee's annuity began after December 1974; otherwise retired employee must be age 65. Full annuity at age 65, or at age 60 if employee had 30 years of service, or with child (under 18 or disabled) in wife's care. Reduced annuity at age 62 (reduction is 1/180 for each month under age 65). Spouses age 60 but under age 65 where employee has 30 years of service deemed to be age 65 for purposes of computing social security level annuity component.
Divorced wife		
No provision.	Married at least 20 years, age requirement same as wife.	No provision for railroad retirement annuity. Can continue to be eligible for social security benefit based solely on railroad employee's social security earnings.
Child		
No provision.	Employee entitled to old-age or disability benefit. Child under age 18 or a student age 18-21, or age 18 or older with total disability beginning before age 22.	No provision for railroad retirement annuity if the employee is living. Can continue to be eligible for social security benefit based solely on railroad employee's social security earnings.

(Please turn page)

III Survivor Insurance Benefits[3]

Old RR Retirement	Social Security	New RR Retirement
Aged widow or dependent widower		
Full annuity at age 60.	Full PIA at age 65. Reduced benefit at age 60.	Eligible for social security level component based on employee's combined earnings plus 30 percent of such component, or what such component would have been if entitled to no other monthly benefit. Eligible at age 60 and deemed to be age 62 for purposes of computing annuity amount.
Disabled widow or dependent widower		
Totally disabled at ages 50-59. Reduced for months under age 60.	Totally disabled at ages 50-59. Reduced for months under age 60 (from reduced aged widow's at age 60).	Totally disabled at ages 50-59. Reduced for months under age 65. Annuity amount computed as for aged widows and dependent widowers except for deeming feature.
Surviving divorced wife		
No provision.	Married at least 20 years. Requirements same as for aged or disabled widow or widowed mother.	No provision for railroad retirement annuity. Can continue to be eligible for social security benefit based solely on railroad employee's social security earnings.
Remarried widow		
No provision.	If remarriage occurred after age 60 based on former husband's earnings but reduced ½ (remarried widow can, if her second marriage terminates, revert to full widow's annuity on basis of first marriage).	No provision for railroad retirement annuity. Can continue to be eligible for social security benefit based solely on railroad employee's social security earnings.
Widowed mother		
Under age 60, child (under 18 or disabled) in her care.	Under age 62, child (under 18 or disabled) in her care.	Under age 60, child (under 18 or disabled) in her care. Annuity amount computed as for aged widows and dependent widows.
Child		
Under age 18, full-time student aged 18-21, or age 18 and over and disabled before age 22.	Under age 18, full-time student age 18-21, or age 18 and over and disabled before age 22.	Same eligibility requirements as under present (old) railroad retirement.
Parent		
Age 60, unremarried, dependent, no other survivors eligible for monthly benefits.	Age 62, unremarried, dependent.	Same eligibility requirements as under present railroad retirement. Parent under age 62 deemed to be that age for purposes of computing annuity amounts.
Insurance lump-sum		
No survivor immediately eligible for monthly benefits. Benefits equal 10 times basic amount.[4]	Payable with respect to all deaths of insured employees and is virtually a flat $255.	Same as under present railroad retirement except amount frozen as of December 31, 1974, and available only if employee had 10 years of railroad service as of that date. If employee had less than 10 years of service as of December 31, 1974, the lump sum amount will be the amount of the social security lump sum which would have been payable if railroad service had been

covered under social security. Lump sum payable only if no survivor immediately eligible for monthly benefits.

IV Residual Benefit

Old RR Retirement	Social Security	New Railroad Retirement
Residual payment		
No further benefits payable under RR or SS on earnings record. Equal to employee's taxes plus a small allowance in lieu of interest minus any benefit paid.	No provision.	Same as under present (old) railroad retirement except there will be no residual with respect to taxes paid after 1974.

[1] *A current connection exists if the employee had 12 months of railroad service in a 30 month period that was not followed by regular nonrailroad employment.*
[2] *Under Public Law 92-203 there is a transitional period in which the retirement age for men is being changed from age 65, at present, to age 62 for those attaining that age in 1975 or later.*
[3] *See item on insured status under section 1.*
[4] *Maximum insurance lump-sum under Railroad Retirement can now equal $1,161.*

News from Canada

John Platt reports on wage negotiations

In an October 21 letter, BofRS Vice-President **John E. Platt** reports on the continuing wage negotiations between the unions and the railway companies. Brother Platt has been elected secretary-treasurer of the Joint Negotiating Committee of all Railway Unions. Following is abstracted from his letter.

When negotiations began back on September 19 there was hope that a satisfactory settlement might be reached quickly. That hope was fed by the facts: that the railways had agreed to start talking earlier than they had to; that it was the first time in 33 years that so many unions had bargained jointly; and that a one-year contract was being considered instead of the usual two-year agreement. At best, the talks might produce, in short order, something which is "fair, equitable and just." At worst, they could break down. If that happens, what next?

Well under the terms of the Canada Labour Code, either side in negotiations can then ask the Labour Minister for help, in the form of mediation or conciliation services. Assistant Deputy Labour Minister William Kelly pointed out in a recent speech in Denver that mediation was used successfully in 1968 to help the non-ops settle with the railways before contracts expired. He noted, too, that it was used again to settle the 1970 round of bargaining. In an obvious reference to the 1972 round, Kelly, himself a former vice-president of the Brotherhood of Railway Trainmen, continued: "There are times, of course, that mediation will fail. The only power a mediator has is the power of persuasion." Mediation and conciliation are similar in that they both involve government appointees intervening to help find a settlement. However, mediation is a more flexible unofficial approach which can come before or after conciliation.

Form of conciliation

Conciliation, which didn't work in the last round either, can take various forms. The minister may appoint a conciliation officer, commissioner or board. Or, if he doesn't think conciliation will help at all, he may notify both sides that he is not going to appoint anyone. This course of action is usually called "making a no board report."

The conciliator's duties are twofold: to help the two sides find agreement, and to report his assessment of a dispute to the minister. The recommendations of the conciliator like those of a mediator, are not binding—unless both parties agree in advance, in writing, to stand by them. This is, in effect, voluntary arbitration.

If the two sides reject this approach, however, the conciliator proceeds to hear both sides make their case anyway. He then reports his findings and recommendations to the minister and to the disputing sides. At this point, acceptance or rejection of the recommendations is up to the negotiators.

Seven days after the minister receives a conciliation report, or seven days after he issues a no board report, the unions are in a legal position to strike; the companies can lock out employees. (This, of course, can only happen after the term of the old contract has expired.)

The purchasing power of the wage rates set by the arbitration award of Mr. Justice Emmett Hall, now in effect, has been shrinking throughout 1974. All because the arbitrator underestimated the rate of inflation. But if Hall's calculations were off, his logic was right on. And in preparing wage demands for the current round of negotiations, the Associated Railway Unions followed his logic closely. It has led them to a defensible demand for a $1.42 an hour increase in existing wages (which average $4.39) plus a lump sum payment of as much as $334, depending on the date of payment.

Hall's reasoning based wage increases on the three main factors that the unions had used during arbitration to justify their demands: catch-up, productivity and cost of living.

The catch-up factor—that is the

(Please turn page)

Canada Cont'd

raise needed to put railway employee's wages in line with those in other industries—was dealt with in the 1973 portion of his award.

For 1974, Hall talked about productivity and cost of living only. He raised Parliament's legislated wage increase to 9 per cent saying: "I hold that there should be an increase of 1.5 per cent allowed on the basis of productivity in addition to what is required in respect to increases in the costs of living." Using the best date available to him at that time, Hall estimated that the Consumer Price Index would rise 7.5 per cent in 1974. But it has already passed that level in the first eight months and at its present rate will rise about 13 per cent, for an average annual rate of inflation of about 11 per cent.

By December, when existing contracts expire, it is forecast that the average hourly wage of $4.39 will buy what $3.53 would buy in December 1972, when the average hourly wage was $3.54. In other words, over the life of the existing two-year arbitrated settlement, purchasing power will have actually decreased, despite the logic of Hall's award which provided for a net increase of 1.5 per cent in 1974 alone.

The primary objective of the wage notice served on the railways on September 19 is to correct Hall's understandable miscalculation for 1974. Then to apply his logic in negotiations for 1975 wage increases in such a way as to prevent the ill effects of a repeated miscalculation. The wage notice was presented as a flexible formula, rather than a dollars-and-cents list. It said we want:

- An increase over 1974 rates to correct Hall's miscalculation, plus a lump sum payment for any loss not covered by the actual increase in rates.
- An increase in 1975 rates to bring them in line with those paid for comparable work in other industries.
- An increase to cover our due share of increased national productivity in 1975, plus a catch-up for 1974, since productivity increased more than the 1.5 per cent rate for which Hall compensated us.
- Cost of living increases which would ensure that the value of the other raises won't be eroded by inflation.

In dollars and cents, it means we want $1.42 an hour more, plus a lump sum payment to compensate for the 1974 miscalculation. The $1.42 breaks down into two portions: 43 cents for 1974 and 99 cents for 1975.

Brother **Arthur Hawkly** (center) was honored on his retirement after serving 26 years with Canadian National. St. Charles local 187 (relay shop at Montreal) honored Brother Hawkly on May 24 with gifts. **John E. Platt** (left) BofRS vice-president, Canada, and retired CN general chairman **Norris Cotton** (right) were among the many members and friends who expressed good wishes to Brother Hawkly in his coming retirement years.

Candid camera recently caught Canadian National signalmen at Savant Lake, Ontario. Left to right are: **Allan S. Felewich,** signal maintainer; **Alexander H. Nazar,** signal maintainer; and **A. W. (Bill) Oakley,** signal supervisor. All are members of Local Winnipeg Centre local No. 12.

Local 165 meets at Hamilton, Ont.

At the June 2, 1974 meeting of Canadian National Burman Lodge 165, new brothers **Kirby G. Lindsay, John M. Prince** and **Tony M. Sparkes** were accepted into the BofRS. Chief Smith gave the obligation to Brother Sparkes.

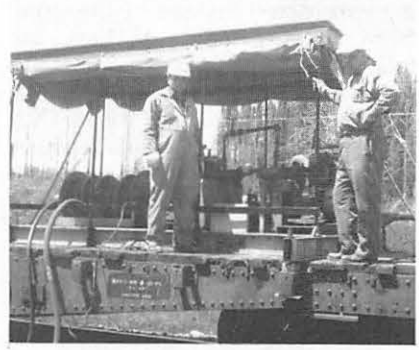
One of the members bid on a job that was in his classification, yet he was examined by the Carrier on his ability to perform. A motion was approved at the meeting stating that any lateral moves made by an individual should be without conditions so long as the individual is the senior applicant for the position.

The testmen and construction gangs have been approached on the idea of working 10 hours per day, 4 days per week. No formal letter has been sent to members, but opinion is that most everyone would favor such working hours.

A vote among local chairmen was to support negotiating as a group on the present contract.

In Welland, Ont., Canadian National and Penn Central have a common track running through the Welland tunnel. This track was installed by CN, but PC has some signal equipment there. The equipment is being maintained by CN signalmen, but PC desires an agreement with CN to maintain the equipment. This is being worked on by the responsible BofRS and Carrier officers.

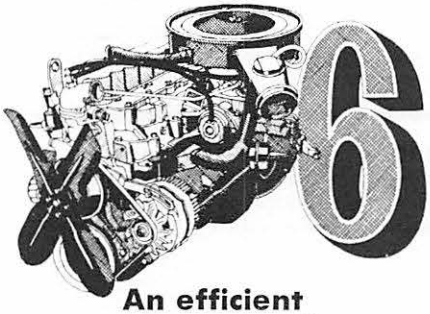
Members present at this meeting included **M. Ferguson, A. J. Gavne, L. Joaquim, B. King, J. Kutz, B. March, W. Mountain, W. W. Shaefer, J. D. Smith, T. Sparkes, D. Spring,** and **R. E. Swan. John E. Platt,** BofRS, vice-president and **D. McAlpine,** assistant general chairman, TH&B, were guests at the meeting.



Edward S. Johannson (left) leading signal maintainer, CN, and **John Goda,** local chairman Winnipeg Centre local 12, stopped working on the propane unloading train long enough to be photographed.

Some facts to consider about economy and value.

Here's good news on how you can get *improved* operating economy and value in 1975 Chevy trucks. Important news about the economies of less frequent routine maintenance. News on how you benefit from lasting Chevy value.



An efficient new economy Six.

Designed specifically to meet today's need for improved operating economy, this engine features a new intake manifold to distribute fuel more evenly to cylinders. And newly designed combustion chambers concentrate the fuel charge around the spark plugs for efficient burning and fast ignition. This engine even uses its own exhaust gases to warm up quicker. You get all this efficiency *and* increased horsepower and torque.

New extended maintenance intervals.

For trucks 6,000 lbs. GVW and under, equipped with catalytic converters and using unleaded gas, the chart below tells the story.

1975*		1974
22,500 miles	SPARK PLUGS	6,000 miles
6 mo. or 7,500 miles	ENGINE OIL	4 mo. or 6,000 miles
First 7,500 miles Every 15,000 miles thereafter	OIL FILTER	First 6,000 miles Every 12,000 miles thereafter
30,000 miles	AIR CLEANER ELEMENT	Sixes: 12,000 miles V8s: 24,000 miles
6 mo. or 7,500 miles	CHASSIS LUBRICATION	4 mo. or 6,000 miles

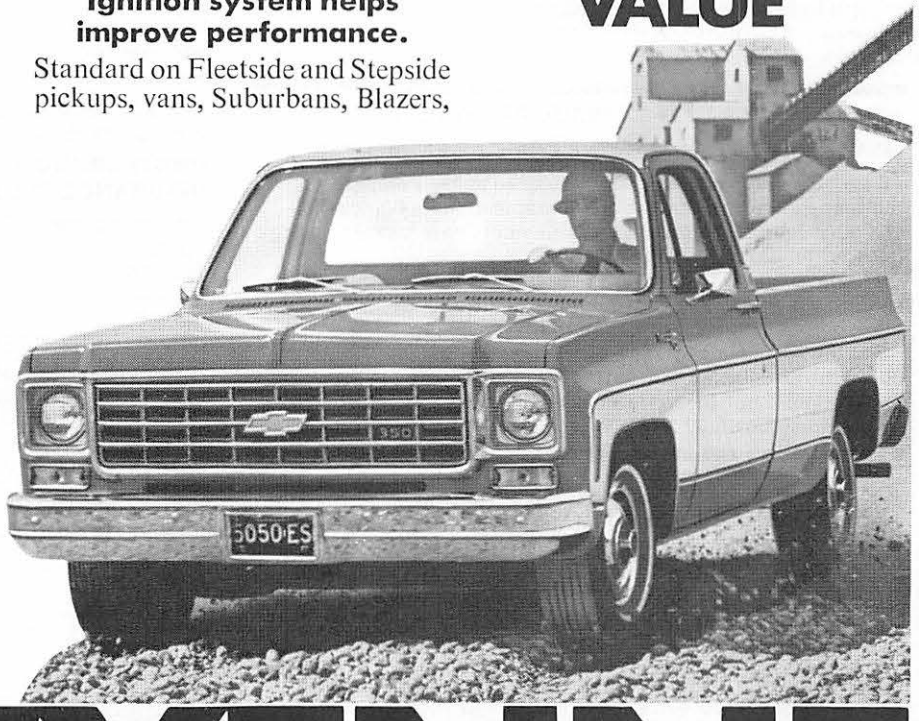
Chevy trucks over 6,000 lbs. GVW, using leaded or unleaded gas, can also go further between recommended spark plug changes than was the case last year. See your Owner's Manual for full details on recommended service intervals.
*Chevy-recommended service intervals for trucks 6,000 lbs. GVW and under.

High Energy Ignition system helps improve performance.

Standard on Fleetside and Stepside pickups, vans, Suburbans, Blazers, and El Caminos, this new system can deliver up to 35,000 volts to each plug to improve starting and it provides all-weather protection from moisture, dirt and road splash. There are no points to require periodic replacement and no ignition condenser to wear out. The result is a system that extends time between tune-ups and helps improve engine performance.

Chevrolet

LASTING CHEVY VALUE



'75 CHEVY CHEYENNE

The Brotherhood of Railroad Signalmen Group Insurance Trust Family Life Plan

Since our inception, the Brotherhood of Railroad Signalmen has always believed in the importance of personal security for its members and their families. Now, after more than two years of development, the BRS is extremely proud to announce a valuable new benefit that has been exclusively designed to meet the needs of our members. A program of Group Term Life Insurance for the entire family. Through the creation of a permanent Brotherhood of Railroad Signalmen Group Insurance Trust, we feel we have provided higher and broader benefits at competitive low rates. (i.e., $5,000 life benefit under age 30—$3.00 quarterly).

The purchasing power of our nearly 14,000 members allows us to provide a program of life insurance that combines a choice of benefits up to $25,000 for all eligible members under age 70 with a special $5,000 Guaranteed Issue provision for all eligible members under age 55 . . . NO PHYSICAL . . . NO HAZARDOUS DUTY EXCLUSIONS.

OPEN CHARTER ENROLLMENT

WHO IS ELIGIBLE TO APPLY—During this Special Charter Enrollment Period, all active members under age 70 may apply for $5,000, $10,000, $15,000 or $25,000. After this Charter Enrollment only those under age 60 are eligible.

If you wish, you may also insure your spouse for $2,500 if he or she is under age 70 (under age 60 after the Charter Enrollment). Also all unmarried dependent children ages 6 months to 23 years may be insured for $1,000 ($100 age 14 days to 6 mos.). A single premium of $1.05 quarterly covers *all* eligible children in a family.

SPECIAL GUARANTEED ISSUE PROVISION
(AVAILABLE ONLY DURING THE CHARTER ENROLLMENT)

All members under age 55 who have been actively employed full-time for the past 60 days are guaranteed the issuance of $5,000 of insurance providing 400 members have applied during this Charter Enrollment Period.

For those applying for the $5,000 Guaranteed Issue coverage, simply fill out *only the shaded portion* of the application. No other proof of insurability is required.

For those applying for family coverage or additional benefits above the $5,000 plan, you must *completely* fill out the application . . . but, the *first* $5,000 of coverage for yourself will still be provided under this Special Guaranteed Issue Provision.

EXCLUSIONS—Benefits are payable for death as the result of any cause. Suicide is covered after insurance has been in force for 2 years.

WAIVER OF PREMIUM—If an insured prior to age 60 becomes permanently and totally disabled for 9 consecutive months, the insurance will be kept in force without further payment of premiums while the disability continues.

CONVERSION PRIVILEGE—An insured member may convert his coverage without evidence of insurability subject to the policy provisions. Your dependents may also convert when you do or upon your death.

BENEFICIARY—A member may name anyone as beneficiary and may change the beneficiary at any time by making written application.

RENEWAL SAFEGUARDS—As long as you (1) continue your membership in the Brotherhood of Railroad Signalmen, (2) pay your premium and (3) the master policy remains in force, your insurance cannot be terminated and coverage is renewable through age 74.

HOW TO APPLY

1. Complete the shaded portion of the application for the $5,000 Special Guaranteed Issue Coverage on yourself.
2. If you desire additional coverage for yourself or you wish to add your spouse or children, complete the remainder of the application form.
3. Mail the application with your check for the first Quarterly premium made payable to the:

BROTHERHOOD OF RAILROAD SIGNALMEN GROUP INSURANCE TRUST FUND

Group Insurance Trust Administrator
180 N. La Salle St., Suite 3220, Chicago, IL 60601
312/726-9122

This application does not apply to residents of Maryland, Ohio or Texas. Further information will be mailed to residents of these states in the next few weeks.

QUARTERLY PREMIUMS*

	MEMBER				SPOUSE	CHILD(REN)
	$5,000	$10,000	$15,000	$25,000	$2,500	$1,000
under 25	2.85	5.70	8.55	14.25	1.00	
25-29	3.00	6.00	9.00	15.00	1.05	
30-34	3.25	6.50	9.75	16.25	1.15	
35-39	4.20	8.40	12.60	21.00	1.50	
40-44	6.20	12.40	18.60	31.00	2.15	
45-49	9.55	19.10	28.65	47.75	3.35	
50-54	14.85	29.70	44.55	74.25	5.20	
55-59	23.15	46.30	69.45	115.75	8.10	
60-64	32.80	65.60	98.40	164.00	12.20	
65-69	52.70	105.40	158.10	263.50	18.50	
70-74	81.50	163.00	244.50	407.50	24.95	

Additional premium for children: A single premium of $1.05 quarterly insures all eligible children ages 6 mos. to 23 yrs. for $1,000 each. Ages 14 days to 6 mos., $100 each.

**Premiums are based on member's age (use member's age for spouse premium) on effective date and increases on the anniversary date following the member's entrance into each succeeding age bracket as shown above.*

UNDERWRITTEN BY:

Bankers Security
LIFE INSURANCE SOCIETY
Executive Office: Washington, D.C.
Home Office: New York City

Tear out and mail today

BROTHERHOOD OF RAILROAD SIGNALMEN INSURANCE TRUST

180 N. La Salle
Suite 3220
Chicago, IL 60601

CHECK COVERAGE DESIRED

MEMBER

☐ $ 5,000
☐ $10,000
☐ $15,000
☐ $25,000

☐ SPOUSE
☐ CHILD(REN)

Bankers Security Life Insurance Society New York, New York 10016
Executive Office: Washington, D.C. 20006

FOR PLAN OF COVERAGE AS REQUESTED

1 Full Name (Print)_____ Sex M ☐ F ☐

2 Address _____ City _____ State _____ Zip Code _____

3 Birth Date – Month _____ Day_____ Year _____ Age____ Height _____ Weight _____

4 Beneficiary _____ Relationship _____
Full Name

5a. What is your occupation and duties? _____

5b. Are you actively performing all the duties of your occupation or profession? Yes ☐ No ☐

5c. Have you been actively engaged in your occupation or profession on a full time basis continuously for the past 60 days? Yes ☐ No ☐

6 If dependents are to be covered, give information below:

Name	Relationship	Date of Birth	Name	Relationship	Date of Birth

7 Have you or any of your dependents consulted any physician, been advised to have medical treatment or surgery, or been hospitalized during the past five years? Yes ☐ No ☐

8 Are you and your dependents to the best of your knowledge and belief in good health and free from physical impairment and disease? Yes ☐ No ☐

9 If your answer to questions 5 and/or 8 is NO, or to question 7 YES, complete below:

Name	Condition or Ailment and Dates Treated	Type and Nature of Treatment	Name and Address of Attending Physician	Degree of Recovery

I understand that the insurance applied for shall not become effective until this application has been approved by the insurer and a certificate of insurance has been issued, and then not as to me if I am not actively engaged in my occupation or profession on a full-time basis, nor as to my dependents if they are hospital confined on the date the insurance would otherwise become effective.

"I hereby authorize any licensed physician, medical practitioner, hospital, clinic or other medical or medically related facility, insurance company, the Medical Information Bureau or other organization, institution or person, that has any records or knowledge of me, or my dependents, or my health, or my dependent's health, to give to the Bankers Security Life Insurance Society any such information.

A photographic copy of this authorization shall be valid as the original."

Signature X _____ Date _____

GL 74-919
BRSL-874a

Signalman's Worksheet

A-C track circuits and relays

Electric roads with D-C. propulsion

The advent of the electrified railroad, using direct current for the propulsion of electric locomotives or cars, necessitated the development of a track relay that could not be operated by propulsion return current in the track rails flowing into the relay's track winding. Direct-current track relays cannot, of course, meet this requirement.

The first alternating-current track relay was of the single-element (single-phase) vane type, taking all its energy from the rails. The first a-c. track circuits were what is known as the single-rail type, one rail being used for return of the propulsion current to the power house or substation, the other rail being broken up into track circuit sections by insulated rail joints inserted between rail ends to provide the desired length track circuit.

The single-element vane relay required a considerable amount of energy for its operation. All the energy for the relay had to be transmitted over the track rails which, due to current leakage between rails through the ballast, provide a very inefficient transmission circuit as compared to an insulated line circuit. Thus it was found necessary to limit the length of these original singlerail track circuit to about 1000 feet or less, depending on ballast conditions.

The demand for longer track circuits, up to 5000 feet or more, necessitated the development of a more efficient type of a-c. track relay than the single-element vane. This was accomplished by the design of what is known as the two-element (two-phase) a-c. track relay. This relay has two windings or circuits; one, the track element, requiring a comparatively small amount of energy from the track circuit; the other, the local element, taking a considerably greater amount of energy, of the same frequency and of a displaced phase relation, from a local a-c. source at the relay location.

Electric roads with A-C. propulsion

The regular a-c. track relays as used on roads employing d-c. propulsion were not considered suitable for use on a-c. track circuits on the roads employing a-c. propulsion, since, under certain conditions that could occur, they would not be immune to improper operation by the 25-cycle propulsion current. This led to the design of frequency selective types of relays both single element and two element, for operation on 60-cycle track circuits installed on roads employing 25-cycle propulsion current. The single-element relay is known as the static-frequency type and the two-element relay is called a centrifugal-frequency relay. Either of these relays will not pick up to make front contacts if 25-cycle current, due to unusual track circuit conditions, should invade its track or track and local windings. In fact, excessive amounts of 25-cycle current in the relay's windings will, due to saturation of its magnetic circuit, cause the relay to assume its deenergized position, opening its front contacts.

Non-electrified railroads

A natural extension of the use of a-c. relays and a-c. track circuits was their application on non-electrified railroads, employing steam or other means than alternating or direct current for propulsion. Unlike d-c. relays, a-c. relays are immune to the effects of foreign d.c. Such foreign d.c. may invade the track circuit from trolley lines which parallel the railroad, a situation once quite common when trolley lines were numerous. Being d.c., it does not materially affect a-c. relays.

A-C. track relays

There are two general types of a-c. relays, the rotor type and the vane type.

The magnetic structure of a-c. relays is laminated, being composed of thin punchings about 0.012" to 0.015" thick, of a special grade of sheet steel, assembled to provide a structure of the shape and size required. Thin sheets are used in order to minimize hysteresis and eddy current losses caused by the alternating flux in the magnetic circuit. Each sheet is sometimes coated with a very thin film of varnish in order to electrically insulate adjoining sheets.

Rotor type A-C. relays

This type is in principle a small induction motor arranged to operate a contact bar with contact fingers assembled thereon. Operation depends upon the effect of a rotating magnetic field produced by out-of-phase currents in the windings of the stator. Mutual attraction between the rotating stator field and the magnetic field of the currents induced in a metallic non-magnetic rotor causes the rotor to revolve and operate the contacts. The stator must have two separate windings, the currents in which must be out of phase, in order to produce a resultant rotating a-c. magnetic flux that has a time-space variation without any zero points. The maximum effect is obtained when the two currents are out of phase by 90 degrees, the ideal phase relation. This ideal relation is rarely obtained in a relay operating on a track circuit. The energy required by the relay will vary in accordance with the sine of the angle of phase displacement between the currents in the local and track phases of the track relay.

NOTE: Information and drawings furnished by General Railway Signal Co.

GRS TRACK QUALITY METER

MEASURES TRACK BALLAST RESISTANCE QUICKLY AND EASILY

The GRS track quality meter can quickly determine ballast resistance thus cut cost and save time in maintenance and installation of track circuits. Simply clamp the track leads across the rails, position the switches, and adjust the BALANCE control — the BALANCE control digital reading can be translated directly into ballast resistance using the calibrated graph. IT'S THAT EASY!

Only 2 track connections necessary for ballast resistance and track current measurements.

And with the accessory current probe, the meter can just as easily determine track uniformity, low resistance pockets (as may occur at highway crossings), and switch rod insulation and insulated joint efficiencies.

Solid-state circuits, a sturdy light-weight fiber glass carrying case, and its own battery pack make the GRS track quality meter a durable instrument suited for field use.

For more information, write for GRS Catalog 92-6.

GENERAL RAILWAY SIGNAL COMPANY

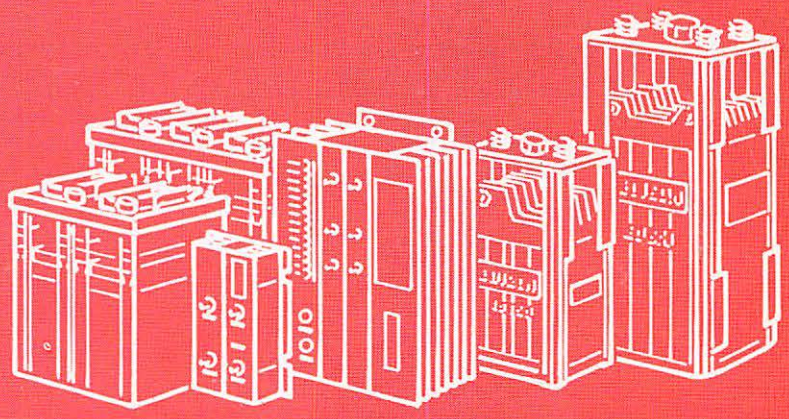
A UNIT OF GENERAL SIGNAL

ROCHESTER NEW YORK 14602

ATLANTA BOSTON CHICAGO MONTREAL NEW YORK OAKLAND ST LOUIS ST PAUL WASHINGTON

3596

Completely Manufactured in the United States of America



EDISON

NICKEL-CADMIUM STORAGE BATTERIES
CARBONAIRE BATTERIES
AUTOMATIC BATTERY CHARGERS

have been created by **American** engineering "know-how" (in our opinion, still the best in the world) . . . They are built with **American** materials and backed by a responsible **American** manufacturing company.

The result? Products you can depend on . . . deliveries you can depend on . . . **every time.**

Yes, you **DO** get more when you buy Edison.

McGRAW EDISON COMPANY

Edison Battery Division
P.O. Box 28, Bloomfield, N.J. 07003
Area Code 201 751-3700